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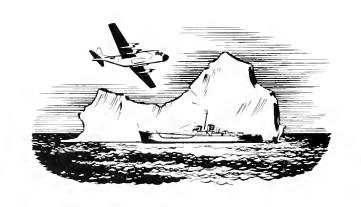
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# UNITED STATES COAST GUARD OCEANOGRAPHIC



# REPORT No. 19 CG 373-19

OCEANOGRAPHY OF THE GRAND BANKS REGION OF NEWFOUNDLAND IN 1967

Charles W. Morgan





Floyd M. Soule, Capt., USCGR

(Photo. Charlotte Joseph)

# Capt. Floyd M. Soule, USCGR (Ret.)

(1901-1968)

Capt. Floyd M. Soule, USCGR (Ret.), the oceanographer and chief scientist for the International Ice Patrol from 1933 through 1963, died at Woods Hole, Mass., on February 15, 1968. He was born July 19, 1901, in Ripon, Wis. and received a B.S. in electrical engineering from George Washington University in 1927. He then entered Government service as a junior physicist with the National Bureau of Standards. In 1918 he became an observer for the Department of Terrestrial Magnetism of the Carnegie Institution of Washington. He joined Carnegie's oceanographic expedition in 1928 and made many of the early observations of the upwelling along the edge of the North Equatorial Current in the Pacific. In 1931 he joined an expedition of the submarine NAUTILUS exploring the waters beneath the Arctic icepack.

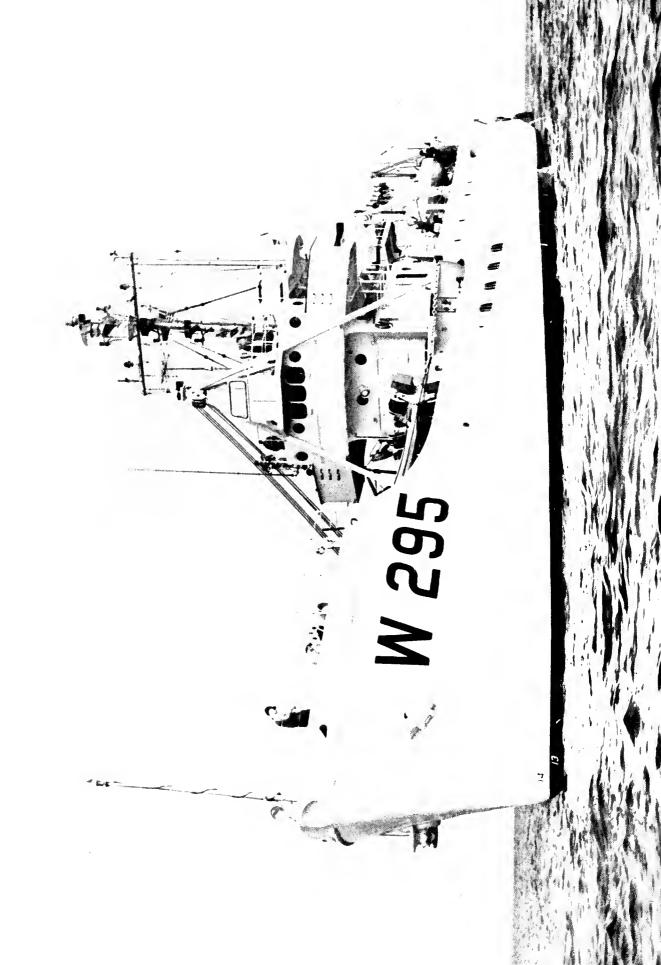
In 1933 Floyd Soule was named senior physical oceanographer of the U.S. Coast Guard and as such assumed direct responsibility of all oceanography in support of the International Ice Patrol. During the next 8 years he participated in a number of expeditions to Davis Strait and the Labrador Sea on board the cutters MARION and GENERAL GREENE, and the area east of the Grand Banks was surveyed on an operational basis that yielded dynamic topographic charts within hours of the final observation. He assisted in the development of the shipboard salinity bridge, the beginning of modern oceanographic technology.

With the advent of World War II, Floyd Soule accepted a commission as lieutenant commander in the U.S. Coast Guard Reserve and served as operations officer under Adm. Edward H. Smith on the Greenland Patrol. His knowledge of arctic and subarctic conditions and his "rare ability to translate academic knowledge into action" earned for Commander Soule the Bronze Star from the U.S. Navy.

After the war, he resumed his position as senior civilian physical oceanographer of the Coast Guard, but remained in the U.S. Coast Guard Reserve and was promoted to captain in 1956. The post-war years saw Captain Soule participating in Ice Patrol cruises on board the Coast Guard Cutter EVERGREEN and as a research associate of the Woods Hole Oceanographic Institution.

He retired in 1963 after completing a series of comprehensive ocean current charts of the iceberg areas of the North Atlantic Ocean on which iceberg drift predictions and warnings to shipping are based. He also saw the expansion of the U.S. Coast Guard into other areas of oceanography. On his retirement the U.S. Treasury Department presented him its highest honor, the Albert Gallatin Award.

Captain Soule was a pioneer in the field of oceanography. He was an astute and meticulous scientist. His life work was given to the International Ice Patrol. He made significant scientific achievements but had the even greater satisfaction of seeing his work used for the benefit of man.



### **Abstract**

Three cruises conducted off the Grand Banks of Newfoundland in support of International Ice Patrol in April, May, June, and July of 1967 obtained measurements of temperature and salinity from a salinity/temperature/depth recorder and from Nansen bottle observations. These data were used to draw temperature and salinity profiles across standard sections, and to calculate surface dynamic topography and volume flow through the sections. Dynamic calculations were based on a reference level of 1,000 meters. The cruises occupied standard section A3 a total of 12 times during the ice season and the data indicated that the volume flow of the Labrador Current showed large fluctuations with time, reaching a maximum of 11 sverdrups (106m³sec-1) in early May. The study of iceberg drift and deterioration, which was initiated in 1964, was also continued.



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# Oceanography of the Grand Banks Region of Newfoundland in 1967

By CHARLES W. MORGAN, U.S. Coast Guard

#### INTRODUCTION

Ice Patrol cruises in 1967 continued the practice initiated in 1966, in that three section surveys replaced the old area survey method (Wolford, in press). Calibrating the normal topography is the term for comparing the surface dynamic heights at these three standard sections with the charts of average monthly surface dynamic topography off the Grand Banks prepared by Soule (1964). Figures 1, 3. and 5 show the standard sections occupied. The reason for the change to calibration survevs is that research shows large short-term (1- to 2-week) fluctuations in the volume flow of the Labrador Current, and therefore, calibration type surveys, frequently repeated, give better data for the prediction of iceberg movement in the Grand Banks area, as well as reduce the ship time necessary for routine surveying.

The time required for a calibration survey varies from 4 to 7 days. This compares with about 7 days for the 1965 cruises which used a modified area survey and the pre-1965 cruises which required about 14 days for an area survey.

#### NARRATIVE

#### General

The USCGC EVERGREEN (WAGO-295), a 180-foot oceanographic vessel, made three cruises to the Grand Banks in the spring and summer of 1967. Real-time oceanographic support was furnished to Commander, International Ice Patrol on the first two cruises. The third cruise was a post-season research cruise in late July.

The first cruise lasted from 28 March to 1 May 1968. Weather, sea, and ice conditions were bad, and on occasion forced the CGC EVERGREEN to heave to. During 2 to 8 April the CGC EVERGREEN made a calibration survey of standard sections A2, A3, and A4, occupying stations 9849-9893. After completion of the survey the ship reoccupied standard section A3 on 9 April with stations 9884-9890. The period from 10 to 21 April was devoted to iceberg drift studies and to putting in to Saint John's and Argentia, Newfoundland. A time-series study of standard section A3 commenced on 22 April with station 9891. This section was occupied four times during the time-series study. A pair of reference markers, which were later lost in a storm before the fourth time-series occupation, marked the western end of the section. During the reoccupation on 25 April, expendable BT casts were made every mile to define details of temperature structure. The STD shorted out during station 9911 necessitating the use of Nansen casts for the rest of the cruise. On 27 April the CGC EVERGREEN completed station 9916 and set sail for Boston with the first cruise of the season behind her.

After departing Boston on 8 May for the second cruise, the CGC EVERGREEN began a survey of standard section A2, A3, and A4 on 12 May with station 9917. Completing station 9949, the calibration survey was finished on 15 May, and the CGC EVERGREEN commenced an iceberg drift study which lasted until 20 May. A second time-series study was then initiated on standard section A3 with reference markers again placed at the western end of the section. The four occupations of

the section lasted through 24 May and consisted of stations 9954–9988. The STD failed on station 9980. On 30 May another iceberg-drift project began, and this lasted through 4 June when CGC EVERGREEN started the final calibration survey of the season. This calibration survey lasted through 7 June and consisted of stations 9997–10023. On 7 June CGC EVERGREEN set sail for Boston, her operational ice patrol duties finished.

The research cruise was to have consisted of standard sections 1 and 4 and an iceberg-drift project. However, due to a thrust bearing failure, the cruise only occupied standard section 4 from 25–28 July with stations 10024–10040.

#### Additional Projects

The iceberg drift and deterioration project was continued in the spring of 1967 with studies on four icebergs over time intervals ranging from about 1 to 4 days on 13–14 April, 19–21 April, 16–19 May and 30 May to 4 June. The CGC EVERGREEN tracked the icebergs and deep and shallow drogues with reference to an anchored buoy, photomapped the icebergs, and recorded wind data. These data will be compiled and published in a separate report.

#### Personnel

The oceanographic work of the first cruise was under direction of the Field Party Chief, LCDR Kenneth M. Palfrey, USCG. Members of the Field Party were Chief Aerographer's Mate Dennis L. Noble, Sonarman First Class Edward S. Olszewski, Jr., Aerographer's Mate First Class David D. Lockhart, Sonarman Second Class Curtis D. Gelder, Sonarman Second Class John G. Colantoni, and Aerographer's Mate Second Class Michael J. Sundquist. The Field Party Chief for the second cruise was Mr. Thomas C. Wolford, Oceanographer. Members of the Field Party were Sonarman First Class William T. O'Brien, Aerographer's Mate Second Class Peter R. San Jule, Aerographer's Mate Third Class Kenneth D. Thoeni, Seaman Aerographer's Mate Raymond M. Patmos, Seaman Aerographer's Mate Danny L. Allen and a student trainee, Mr. Donald P. Massa. The Research Cruise was also under the direction of Mr. Thomas C. Wolford, who was assisted by Lieutenant James M. Seabrooke, USCG. The Field Party consisted of Senior Chief Sonarman Robert C. Reid, Sonarman Second Class Curtis D. Van Gelder, Sonarman Second Class John G. Colantoni, Yeoman Second Class Dwight E. Olson, and a student trainee, Mr. Richard F. Johnson.

#### Instrumentation

The primary sampling instrument for the stations occupied during the 1967 cruises was a Bisset-Berman Model 9006N salinity/temperature/depth (STD) recorder. The readings of the STD were corrected by comparison with Nansen bottle samples taken on the STD wire.

The teflon-lined Nansen bottles used were from Ballauf Manufacturing Co. and United Machine Co. The deep sea reversing thermometers were manufactured by Richter and Wiese, GM Manufacturing Co., Kahl Scientific Instrument Corp., and Walter H. Kessler Co., Inc. The bathythermograph system used was the Sippican Corp. expendable BT. A model 6220 Bisset-Berman salinometer determined salinities of water samples taken by Nansen casts.

The following presents a summary of representative statistics on the salinity and temperature instruments:

Instrument	Accuracy	Standard deviation
Reversing ther-		
mometers	$\pm 0.01  {}^{\circ}\mathrm{C}^{\scriptscriptstyle 1}$	$\pm 0.011$ °- $\pm 0.016$ °C <sup>2</sup>
Salinometers	$\pm 0.01$ % <sup>3</sup>	$\pm 0.005\%$ (Precision)
STD		
Temperature	±0.05°C4	$\pm  0.060^{\circ}$ $- 0.099^{\circ}\mathrm{C}^{\scriptscriptstyle 5}$
Salinity	±0.03%。4	$\pm 0.018 – 0.037\%^{5}$
Depth	$\pm 0.5 M^{4}$	
Temperature	±0.03%。4	

- <sup>1</sup> Sverdrup et al. (1942).
- $^2$  Kollmeyer et al. (1965).
- <sup>3</sup> Morse (1963).
- 4 U.S. Naval Oceanographic Office (1965).
- <sup>5</sup> Unpublished Coast Guard data (1967).

An Alpine Precision Echo Sounder Recorder was used to measure depth to the bottom. A near surface temperature recorder installed on the CGC EVERGREEN was erratic in operation when compared with other means of obtaining sea surface temperature. One of the problems was that the sensor was located in a sea chest.

An AN/GV5-1 ruby laser rangefinder pro-

vided ranges to icebergs for photomapping. The anchored reference buoy used in the iceberg-drift studies was a Geodyne Corp. toroidal fiberglass buoy equipped with a mast and an antenna array, and moored with a bridal, swival, ballast ball, 120 fathoms of 1-inch braided nylon, 1 shot (15 fathoms) of 1/2-inch anchor chain and a 75-pound Danforth anchor. A SST-119X solid state radar transponder manufactured by Motorola Inc. was attached to the reference buoy to facilitate tracking of the iceberg during drift studies. The drogues used in the iceberg-drift project consisted of 28-foot cargo parachutes suspended at 10 or 70 meters depth from a buoy made of innertubes and a bamboo pole with a radar reflector and a light. A similar type of moored buoy acted as a reference marker in some of the iceberg-drift studies, and marked the western end of standard section A3 in the time-series studies.

Loran A and C, visual fixes, celestial fixes, and dead reckoning were the navigational methods used. A bottom current speed-direction recorder manufactured by Cm<sup>2</sup> Company was used on some of the iceberg-drift studies.

A PDP-8/S digital computer manufactured by the Digital Equipment Corp. was used to process all observed data at sea. The temperature and salinity data at each station were processed by computer using methods discussed by O'Hagen (1964), Morse and O'Hagen (1964) and Kollmeyer (1964) to obtain values of sigma-t and dynamic height anomaly at desired depths. Using the method discussed by Kollmeyer (1967), the volume flow was computed with respect to the 1,000-meter level through solenoids which subdivide a property section into small rectangles. The average solenoidal temperature and salinity were also calculated. When the STD recorder was inoperative, the computer was used to correct reversing thermometers, determine thermometric depth, and calculate salinity from salimometer data.

The data presented in the Tables of Oceanographic Data are from computer printouts returned to the Oceanographic Unit from the National Oceanographic Data Center (NODC), Washington, D.C. Interpolation to standard depths has been done by NODC.

#### DISCUSSION

In general the physical oceanography of the Grand Banks area during the spring and summer of 1967 appears to follow the pattern of previous years. Figures 2, 4, and 6 are charts of the average dynamic topography of the surface in the area off the Grand Banks for April, May, and June, based on 22 years' observations (Soule, 1964). In these normal charts the steepest dynamic gradients have been smoothed somewhat in the averaging process. The charts indicate that, although the general circulation in the area remains basically the same, there are seasonal fluctuations in the current system. A conspicuous feature of the system, see figure 2, is the Labrador Current which flows southward along the eastern edge of the Grand Banks toward the area of the Tail of the Banks, and then dies out as it continues westward or recurves to the northeast. A dynamic trough lies east of the Labrador Current; between this trough and the high dynamic stand of the meander-like intrusion of the Atlantic Current Water, mixed Atlantic-Labrador Current water flows northeastward. North of the Atlantic Current intrusion there is an eastward flow from further north.

During May, the normal surface topography exhibits an increase in dynamic height on the Banks as shown in figure 4. This is generally related to the arrival of less saline water associated with spring runoff and ice melt. The change in the dynamic height in the trough is less than the change on the Banks, so there is an increase in current speed in May. A second notable change, shown in figure 6, occurs in June when the dynamic trough tends to fill somewhat. This is associated with the recurvature of the water which was off the Banks in May, and it results in a lessening of the flow of the Labrador Current.

Figures 1, 3, and 5 are the charts of dynamic topography for the calibration surveys made in April, May, and June respectively. A comparison of the April survey and the normal topography shows a slight shift of the Labrador Current on the Grand Banks, and an apparent shift of the meander centered at 42° N. 45.5° W. toward the west. The calibration survey for May shows a strong crowding of the

contours toward the dynamic trough and a high dynamic stand on the Banks, inferring a strong Labrador Current with considerable flow over the northeast corner of the Banks west of section A2. The meander at the tail of the Banks appears to have shifted eastward. The semipermanent meander at 42° N. 45.5° W. appears to have shifted west of its normal position. In June the flow of the Labrador Current past section A3 appears about normal. However, at the Tail of the Banks a wide slow westward flow appears to have shifted the meander southward. There are indications that the semipermanent meander at 42° N. 45.5° W. was still some distance west of its normal position.

Temperature and salinity profiles for the standard section on the calibration surveys appear in figures 7 through 9. Differences in the bottom topography of the same sections are due to the navigational difficulty of reoccupying the exact same line of stations. Comparison of the profiles for section A2 shows a slight warming as the season progresses. This was accompanied by a slight freshening at depth and a spreading of less saline water from the Banks eastward. At section A3 the cold core of Labrador Current water was quite small in the first week of April. However, by the middle of May the size of the core, as well as the temperature of the North Atlantic Current water intrusion, had increased considerably. The final survey in June shows a slight decrease in the size of the Labrador Current water core. The salinity profiles at section A3 are characterized by a massive influx of fresher water from the Grand Banks onto the continental slope between April and May. This is generally attributed to spring melt and runoff from Newfoundland and Labrador. By June the water had become more saline again.

Proceeding further south to section A4 profiles, a core of Labrador Current water is noticeable on the edge of the Banks in April and May. By June, however, the profiles show that warming of water on the Grand Banks and mixing with the North Atlantic Current had caused a considerable rise in temperature. The salinity profile shows no well developed minimum core in April; however, in May a well developed core of less than 33.0% is evident.

The profile for June shows that the salinity had again increased.

Figures 10 through 21 show the results of the time-series observations of section A3. The left hand edges of the profiles of temperature, salinity, sigma-t and dynamic height are adjusted to a common base line running between 45–00 N., 49–18 W. and 44–00 N., 49–40 W. Comparison of the figures shows details in the time changes occurring throughout the season. These time-series studies indicate that very rapid changes were occurring in the structures of the water. It is not clear whether the observed changes were due to advection of water from the north, or tidal, or other wave effects.

The expendable bathythermograph profile across the Labrador Current at section A3 is shown in figure 22. An attempt to use this temperature profile with the interpolated salinity profile from stations 9907 to 9911 to compute volume flows gave unrealistic results. Making slight changes in the salinity values, which amounted to introducing turbulence into the salinity profile, and using the expendable bathythermograph data gave volume flows comparable to those computed from temperatures and salinity data from stations 9907 to 9911 alone. This indicates that perhaps spatial turbulence in the temperature and salinity profile tends to compensate in such a manner that the density profile remains fairly smooth.

Figures 23 and 24 show the dynamic topography and the temperature and salinity profiles from the research cruise. This profile extends into the Gulf Stream and shows temperature and salinity maximums of 26.3° C. and 36.72% in the vicinity of stations 10026 and 10027.

The water mass analysis, figure 25, shows the 20 year mean and the 1967 average characteristics of the Labrador Current, mixed, and Atlantic Current water masses. Volume flow, heat transport, salinity transport, average temperature and average salinity were computed for each station-depth solenoid using the methods described by Kollmeyer (1967). The volume flow, average temperature, average salinity, and minimum temperature of the Labrador Current were calculated for each section and are shown on a time-series plot in figures 26 through 29.

The Labrador Current, as differentiated from the Labrador Current Water Mass, is defined in this paper as follows. At section A2 it is the total southerly flow through the eastwest leg and the total easterly flow through the north-south leg. At section A3 it is the total southerly flow west of the dynamic trough, and at section A4 it is the total westerly flow north of the North Atlantic Current. Since the above definitions are simple to use and do not require questionable subjective analysis, their use appears justified.

The total flow of the cold core of the Labrador Current as defined by Kollmeyer (1967) was also determined. The volume flow of this cold core, consisting of water less than 2° C. and 34.3%, is indicated on the time-series plots by a dashed line. On these figures a dashed line is also used to indicate the minimum temperature observed while occupying each section.

Section A3 is the most interesting time series to examine in detail. Because the southward flow of the Labrador Current between the Grand Banks and the dynamic trough is usually quite well defined, it is also the most accurate. The 12 reoccupations of section A3 indicate that the Labrador Current undergoes rather large changes in a matter of days; for example a change in the volume flow of two sverdrups occurred over 2 days around 25 April. The cause of these fluctuations is still open to explanation. Besides the limitations of the geostrophic method, possibilities include tidal or internal wave effects, short-term variations in spring thaw and runoff, variations in the discharge of water from Hudson Bay (Kollmeyer, 1966), variations in the North Atlantic Current, and of course, instrument error or error in the selection of depth of no motion.

The general trend of volume flow at section A3 throughout the season conformed to that described by Smith (1937), namely an increase in volume flow between April and May due to a "spring freshet", and then a decrease in June. In 1967 the volume flow attained a record value of over 11 sverdrups on 13 May, and the average dynamic current between stations 9928 and 9929 were on the order of 3 knots. Unfortunately, the CGC EVERGREEN did not reoccupy section 3 just before or after 13 May. The wind for the 24 hours previous to

station 9929 was from the south and averaged 14 knots. This opposed the flow of the Labrador Current and would have caused an Ekman transport toward the east. Since the geostrophic approximation does not directly consider the wind-driven current, it is possible that the actual flow was less than the geostropic flow. The volume flows for 22–27 April and 21–25 May indicate that there are, undoubtedly, accelerating forces.

Most of the contribution to the large volume flow came from solenoids between stations 9928 and 9929. The T-S diagram for station 9928, figure 30, is somewhat unusual. It shows that the water down to 20 meters was relatively warm and fresh, indicating it came from the Grand Banks. The water between 30 and 150 meters was cooler and fresher than normal Labrador Current water at the same depth; however, the salinity is the controlling factor and the water was less dense than normal. Between 200 and 350 meters the water appears to have characteristic temperatures and salinities of 1.75° C. and 33.85, somewhat colder, considerably fresher, and therefore, less dense than normal. Instabilities are evident in this depth interval. There was an abrupt change in the water properties between 250 meters and 265 meters. From 265 meters to 415 meters the water was considerably warmer, fresher, and less dense than normal. Below 475 meters the water had normal temperatures but was fresher and less dense. It is primarily the unusually low density of the water below 265 meters which caused the high dynamic stand of station 9928. Examination of the T-S curve for station 9929 in the dynamic trough shows that the water was colder and fresher than the normal mixed water type, and that the density was greater. It is this combination of unusually light water at station 9928 and slightly denser water at station 9929 that was the dynamic reason for the large volume flow on 13 May.

Comparison of the average temperature and salinity in the Labrador Current on 25 April and 13 May, figure 28, shows that although the temperature and salinity were similar on the two dates, the volume flow in May was larger by a factor of 3. The surface dynamic height with respect to the 1,000-decibar surface of the westernmost station, the trough station,

and the station just west of the trough, figure 31, shows again that the reason for the large volume flow on 13 May is that the water in the trough becomes denser while the water west of the trough becomes lighter.

Although the causes of the high-volume flow are dynamically obvious, the reasons for the conditions causing the dynamic stands at section A3 on 13 May are not clear. Recirculation of the Labrador Current south of section A3 and mixing probably formed the cold-salinity water responsible for the low dynamic stand at station 9929. The presence of unusually warm fresh water between 265 and 415 meters at station 9928 is difficult to explain. It may be that there was a cyclonic circulation and sinking of normal mixed water type from the 100-meter level. Smith (1937) gives examples in surface dynamic topographies of such recirculation. Even though such a recirculation may be possible, the sigma-t profile at section A3, figure 16, shows that such a recirculation, if it occurred on isentropic surfaces, probably took place well north of section A3.

The possibility that an error in the depth of no motion caused the large flow at section A3 on 13 May can be examined. Defant (1961), describes a method of determining the depth of no motion between two stations by examining the difference in dynamic height between the stations as a function of depth. The depth at which the difference in dynamic height is constant with depth is assumed to be a depth of no motion. Figure 32 shows that, by Defant's criteria, the depth of no motion is at least as deep as 1,500 meters. This would indicate that the flow is even greater than 11 sverdrups.

Examination of the time-series plot for the east-west leg of section A2 (fig. 26) shows that on 15 May the flow was at a minimum. This hardly agrees with the maximum at section A3 only 2 days previous. The net flow, with respect to the 700-decibar surface, between stations 9928 in section 3 and 9940 in section A2 was 8.1 sverdrups east-southeastward. This represents an average current of 4 cm/sec. The flow at right angles to this was, of course, indeterminant, but it is most likely that the east-southeastward flow represents the greater portion of the flow. It thus appears that most of the flow at the latitude of section A2 in May

spilled over the northeast corner of the Grand Banks west of the westernmost station in the section.

Previously unpublished results from a current meter attached 50 meters below a buoy moored by the Ice Patrol in position 44-53 N., 48-54 W., near the western end of section A3, in 1961 give support to the notion of large short-term changes in the Labrador Current in spite of reservations about the adequacy of the record obtained. The instrument failed to give reasonable readings of current direction, but did yield a readable record of current speed for a period of 48 days between 28 May and 15 July. Recently the speed record alone was read by eye in an effort to retrieve any usable data. Readings were made every 20 minutes, yielding 3,460 consecutive speed values. The average speed was 29.6 cm/sec, with maximum and minimum speeds of 64.2 and 6.5 cm/sec respectively.

The data after subjection to spectral analysis showed peaks in kinetic energy density at two points. Evidence of a slow-running clock in the instrument was seen in the fact that these peaks fit the inertial (17.0 hours) and the semidiurnal tidal (12.4 hours) periods when multiplied by a factor of 0.93. Thus it can be inferred that inertial and tidal periodicities can be expected in the flow along the eastern edge of the Grand Banks.

The time plot of the current record also revealed a marked 14- to 15-day periodicity, but the length of the record is far too short to draw any firm conclusions.

In summary, analysis of the data for 1967 has again shown the possibility of high frequency variability in the physical oceanography of this most interesting region where two major currents impinge upon each other. A part of the general problem of iceberg drift and deterioration must include not only better information on what periods of variability are significant in various areas of the region, but also understanding of the reasons for such variability.

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- WOLFORD. T. C. (in press). Oceanography of the Grand Banks Region and the Labrador Sea in 1966.U.S. Coast Guard Oceanographic Report CG 373-13.

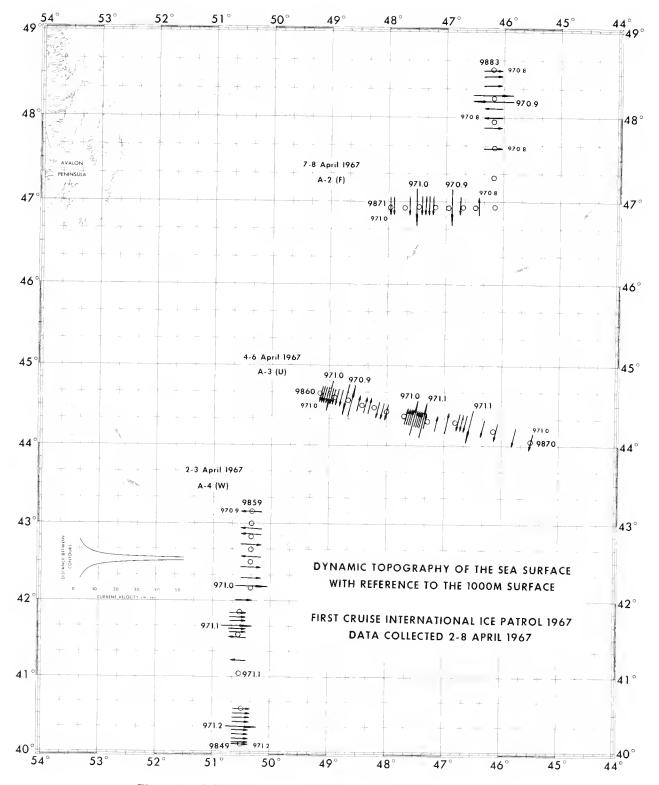


Figure 1. Calibration survey dynamic topography, 2-8 April 1967.

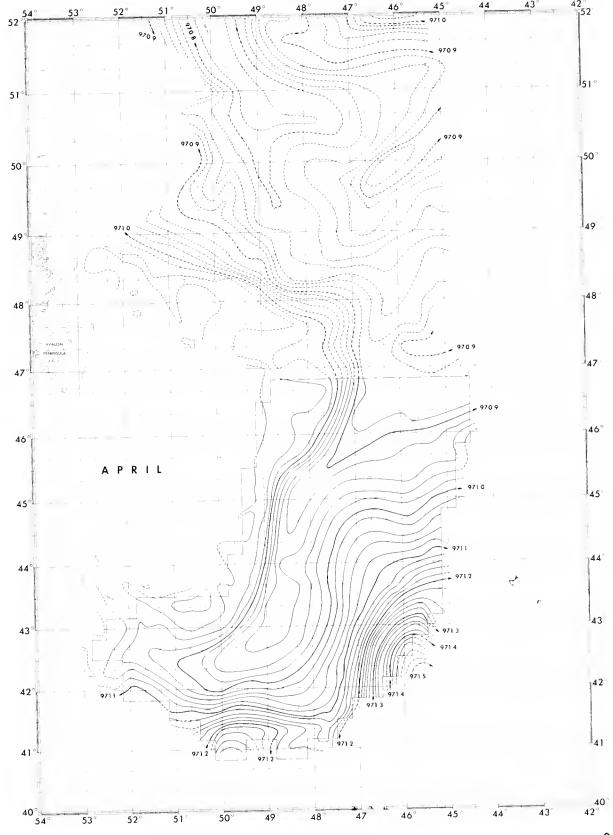


Figure 2. Normal dynamic topography, April.

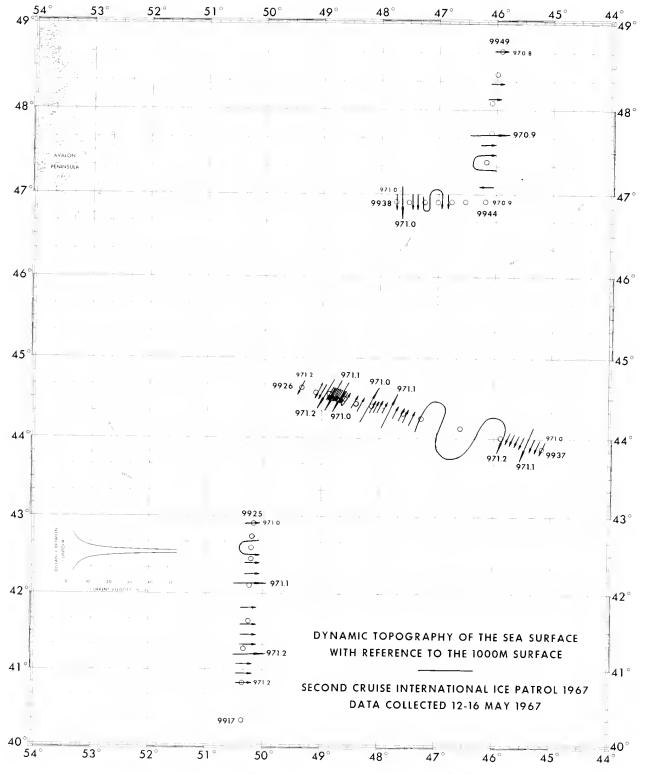
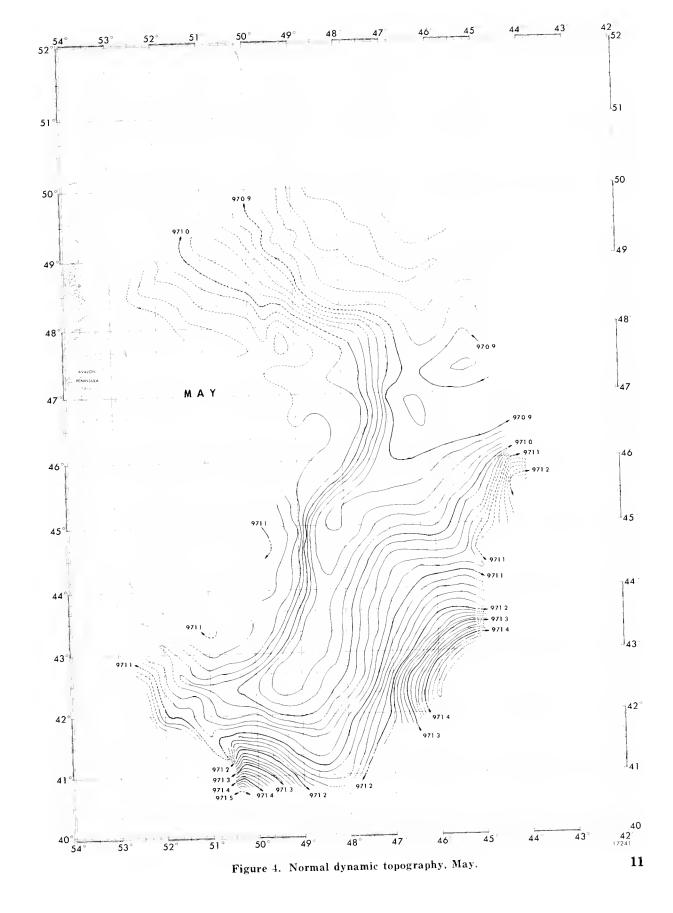


Figure 3. Calibration survey dynamic topography, 12-16 May 1967.



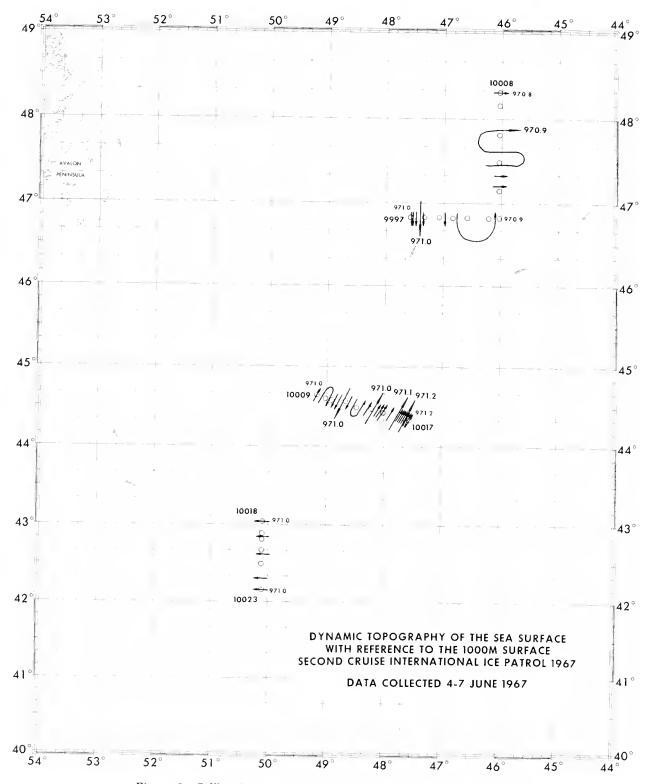


Figure 5. Calibration survey dynamic topography, 4-7 June 1967.

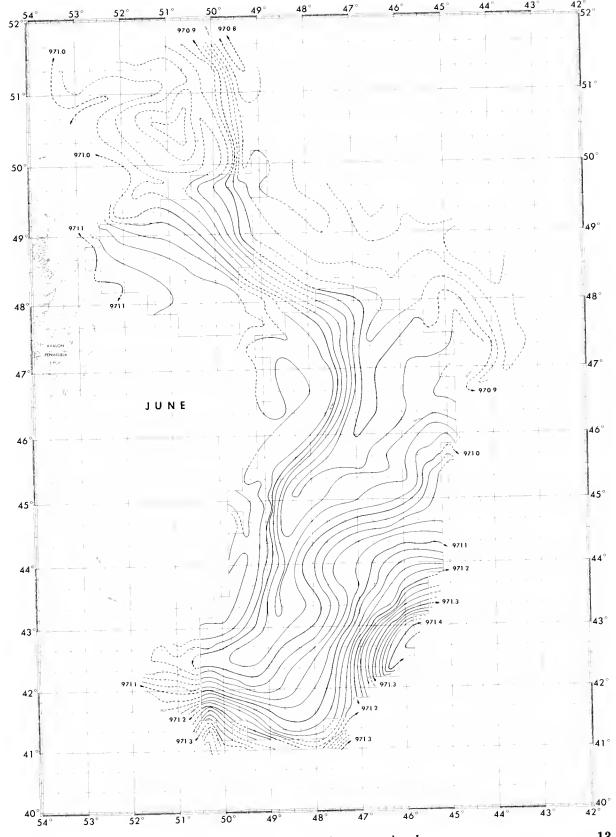


Figure 6. Normal dynamic topography, June.

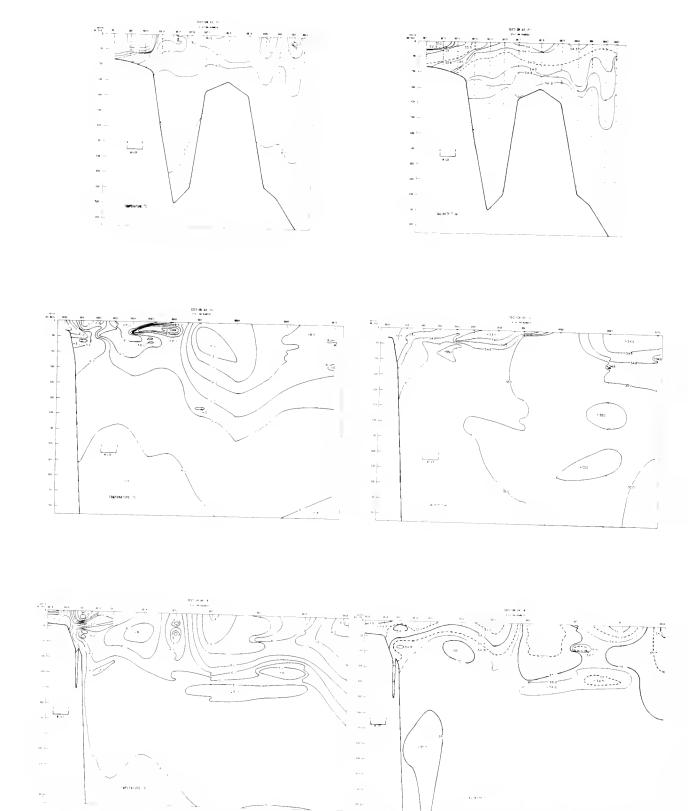


Figure 7. Temperature and salinity profiles, 2-8 April 1967.

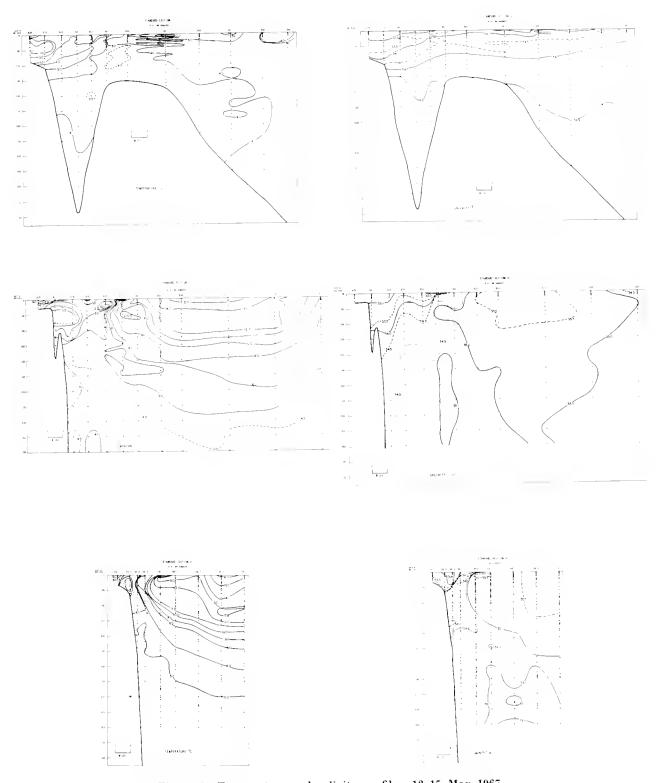


Figure 8. Temperature and salinity profiles, 12-15 May 1967.

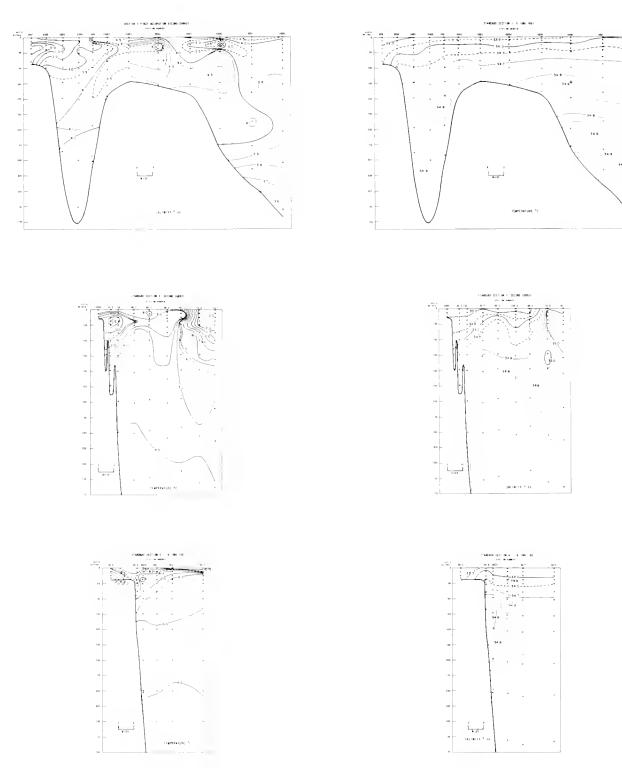


Figure 9. Temperature and salinity profiles, 4-8 June 1967.

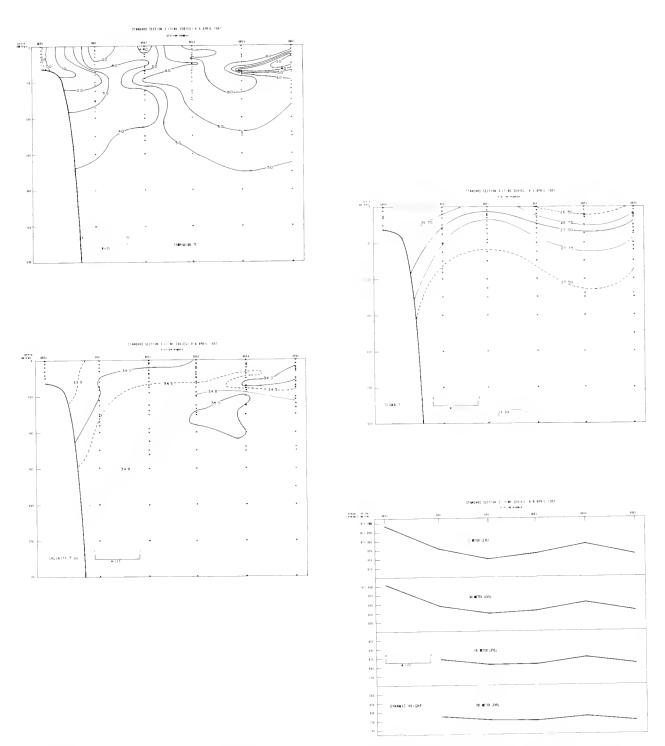


Figure 10. Temperature, salinity, sigma-t and dynamic height profiles, standard section A3, 4-6 April 1967.

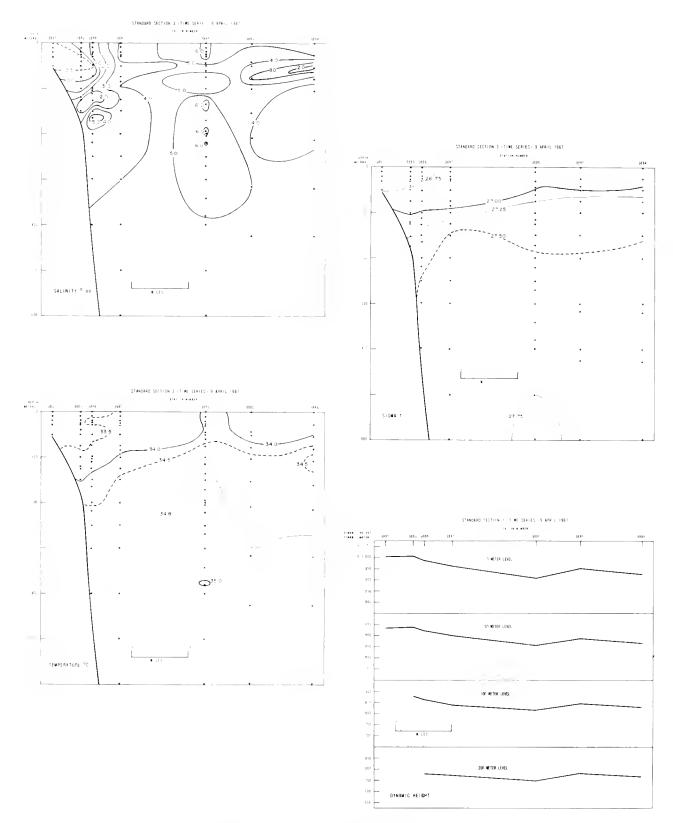


Figure 11. Temperature, salinity, sigma-t and dynamic height profiles, standard section A3, 9 April 1967.

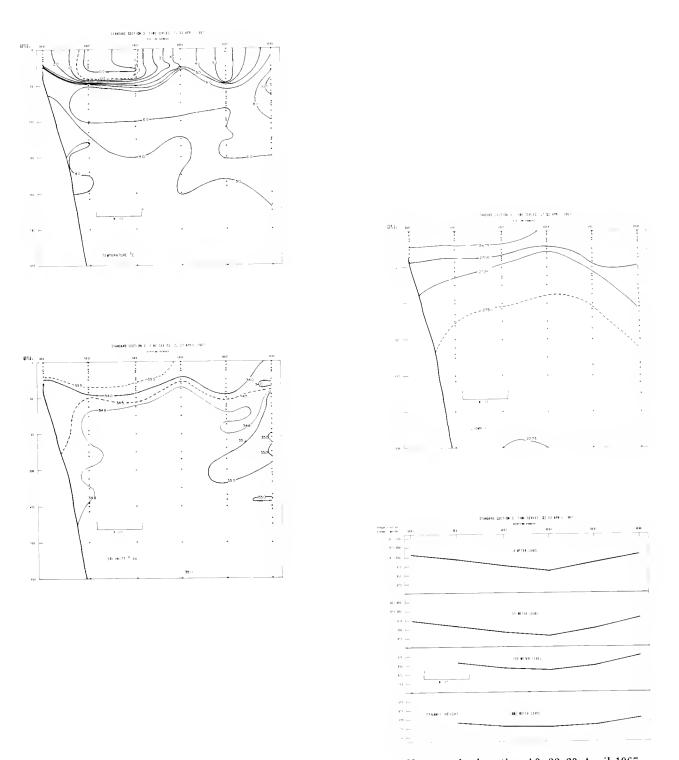


Figure 12. Temperature, salinity, sigma-t and dynamic height profiles, standard section A3, 22-23 April 1967.

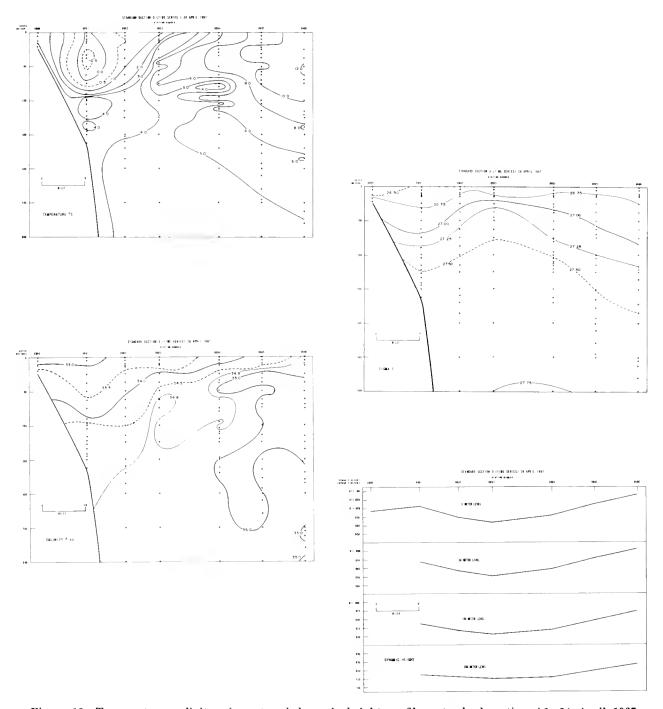


Figure 13. Temperature, salinity, sigma-t and dynamic height profiles, standard section A3, 24 April 1967.

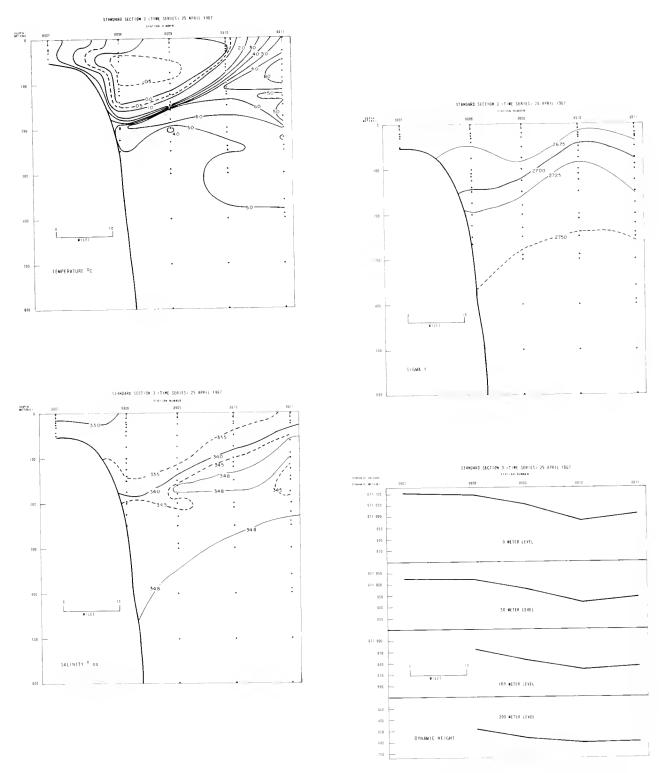
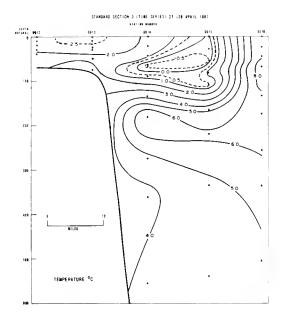
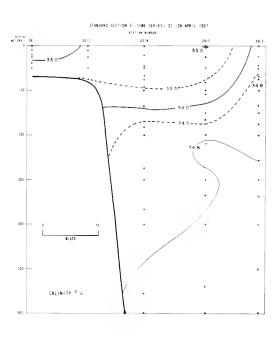
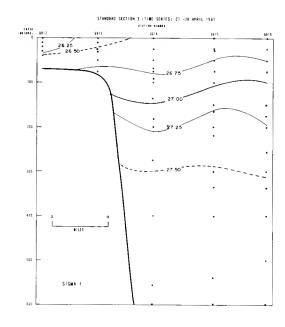


Figure 14. Temperature, salinity, sigma-t and dynamic height profiles, standard section A3, 25 April 1967.







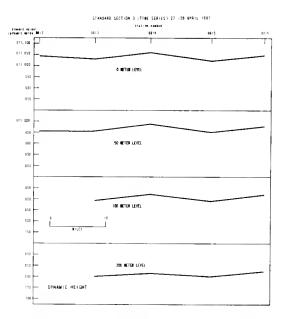


Figure 15. Temperature, salinity, sigma-t and dynamic height profiles, standard section A3, 27–28 April 1967.

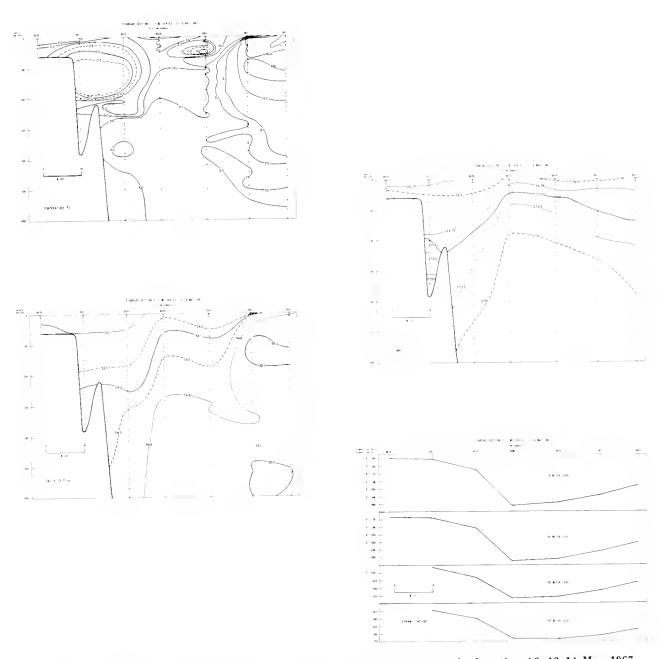


Figure 16. Temperature, salinity, sigma-t and dynamic height profiles, standard section A3, 13-14 May 1967.

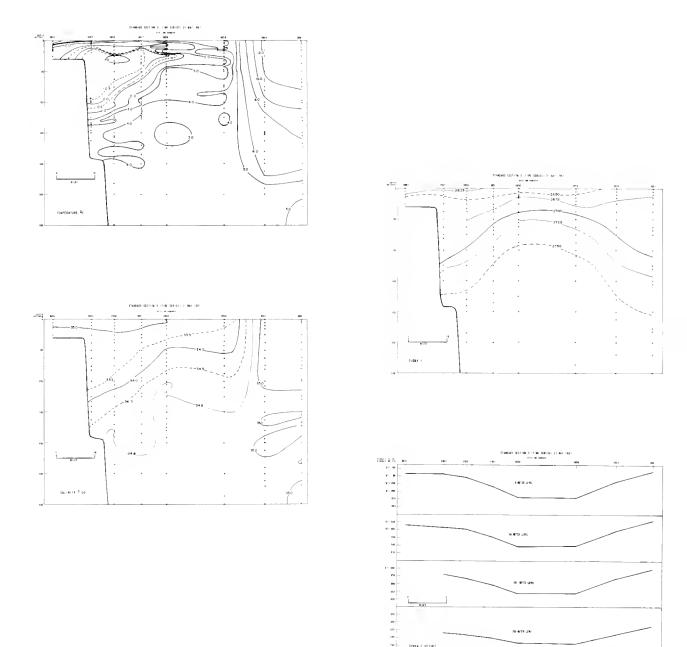


Figure 17. Temperature, salinity, sigma-t and dynamic height profiles, standard section A3, 20-21 May 1967.

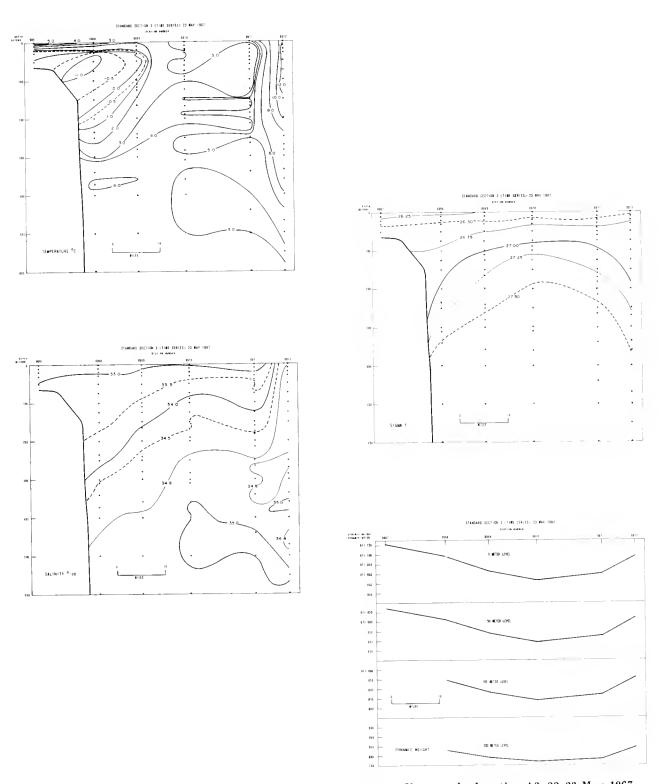


Figure 18. Temperature, salinity, sigma-t and dynamic height profiles, standard section A3, 22-23 May 1967.

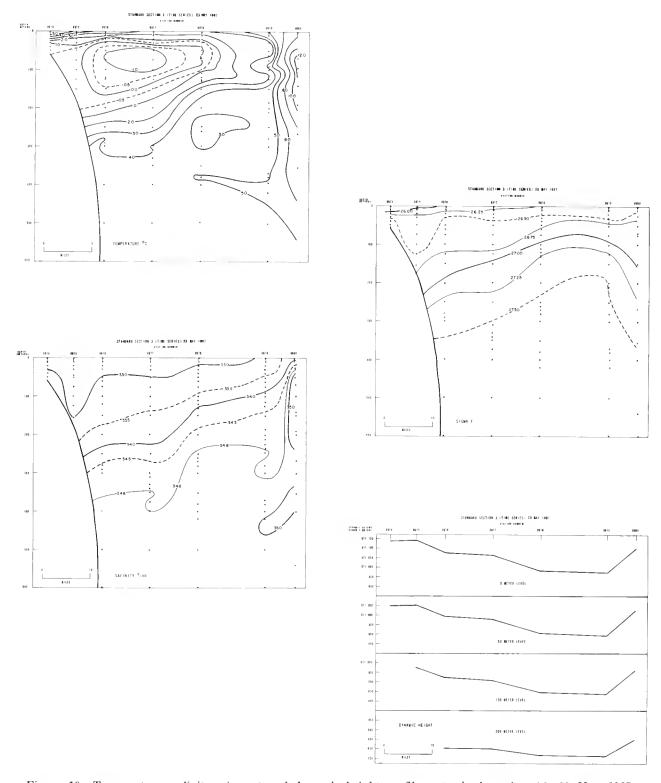


Figure 19. Temperature, salinity, sigma-t and dynamic height profiles, standard section A3, 23 May 1967.

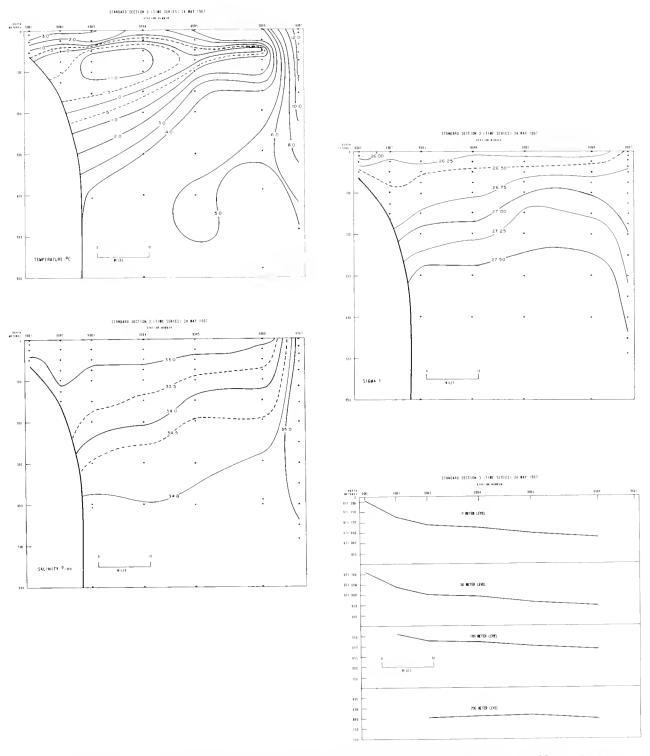


Figure 20. Temperature, salinity, sigma-t and dynamic height profiles, standard section A3, 24 May 1967 (cast on station 9987 did not extend to reference level of 1,000 M).

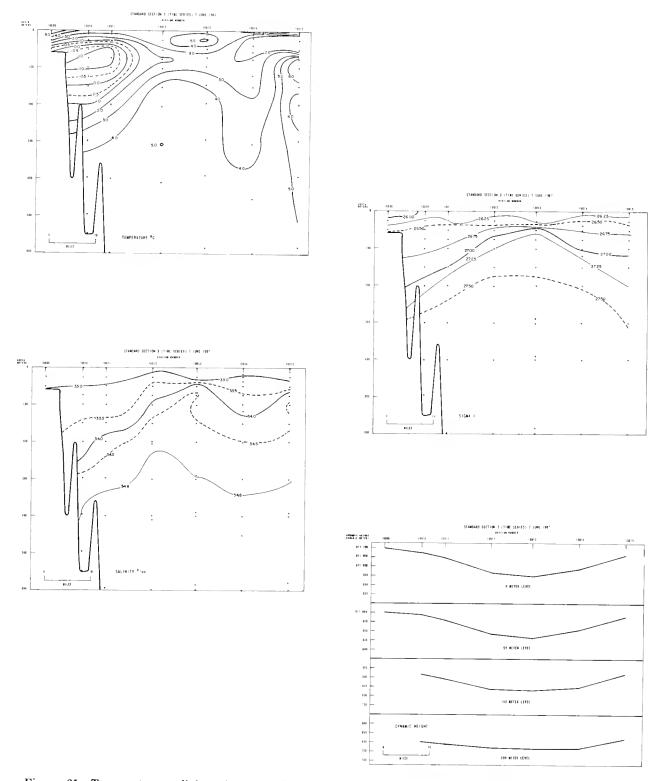


Figure 21. Temperature, salinity, sigma-t and dynamic height profiles, standard section A3, 6-7 June 1967.

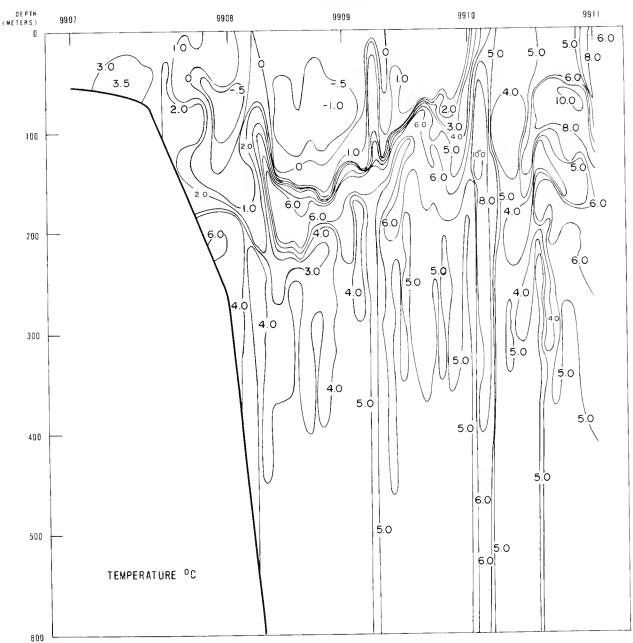


Figure 22. Detailed temperature structure of section A3 as determined by XBT casts, 25 April 1967.

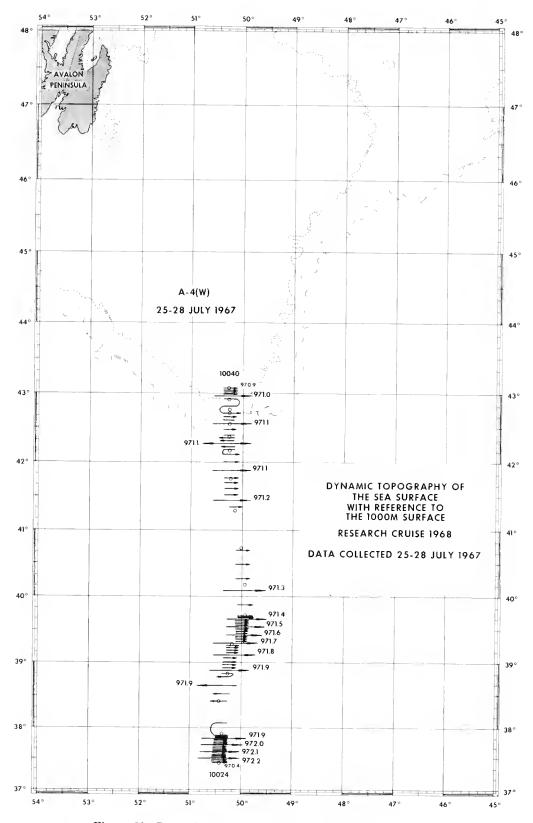
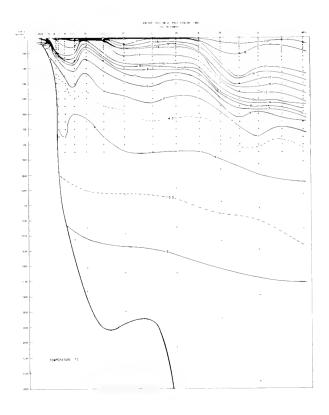


Figure 23. Dynamic topography section A4, 25-28 July 1967.



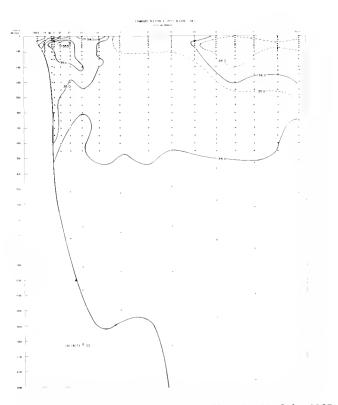


Figure 24. Temperature and salinity profiles, 25-28 July 1967.

Figure 25. Mean and 1967 temperature-salinity relationships in the Grand Banks region.

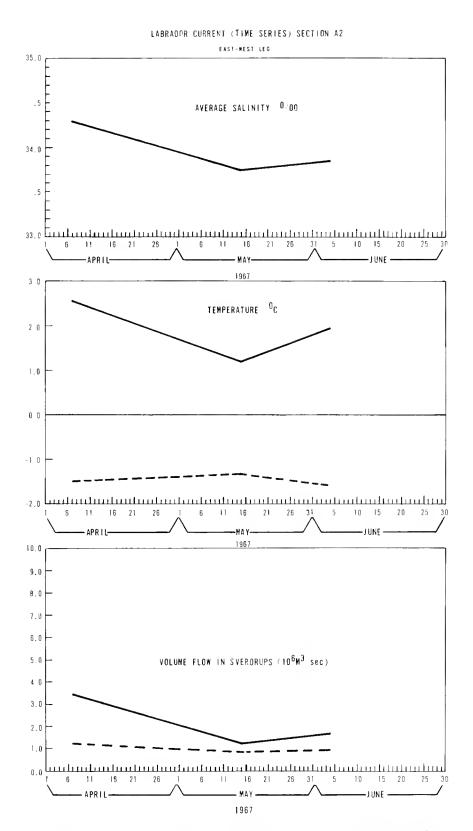


Figure 26. Labrador Current time series, section A2 1967, east-west leg.

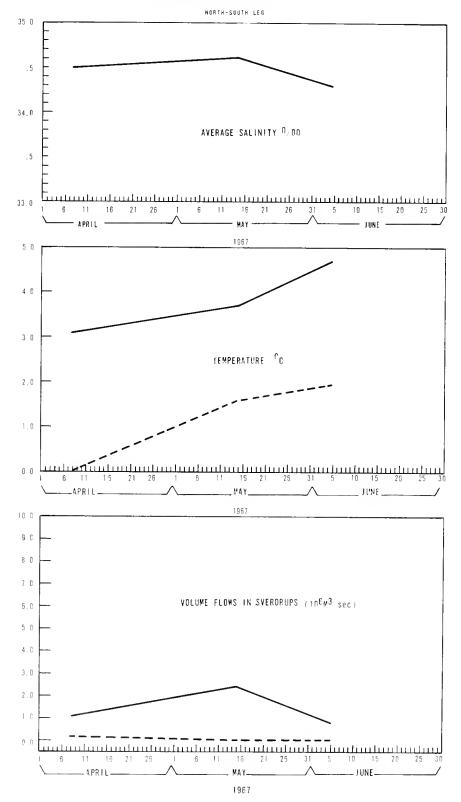


Figure 27. Labrador Current time series, section A2 1967, north-south leg.

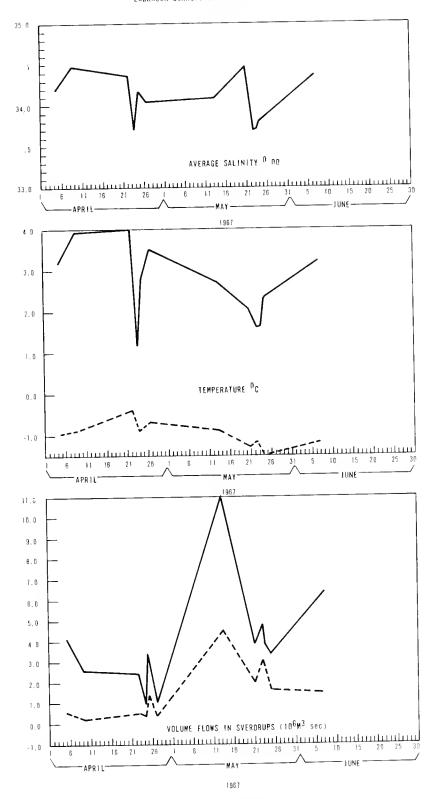


Figure 28. Labrador Current time series, section A3 1967.

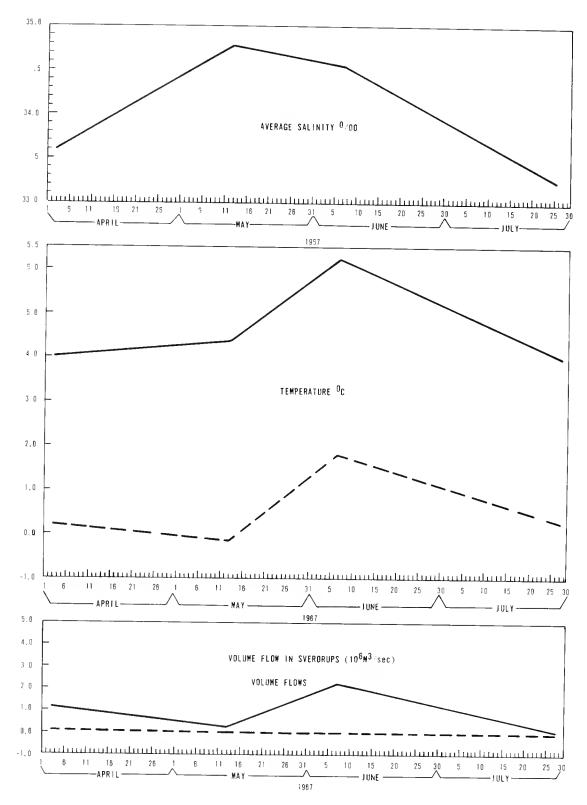


Figure 29. Labrador Current time series, section A4 1967.

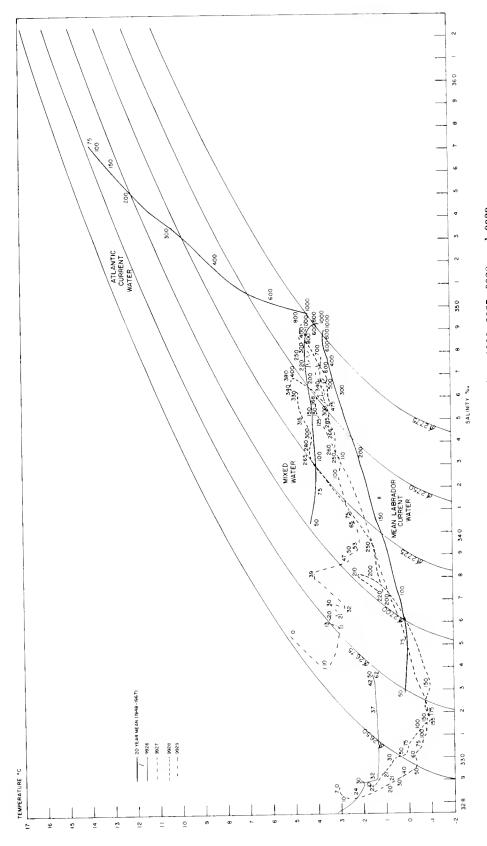


Figure 30. Temperature-salinity curves, stations 9926, 9927, 9928, and 9929.

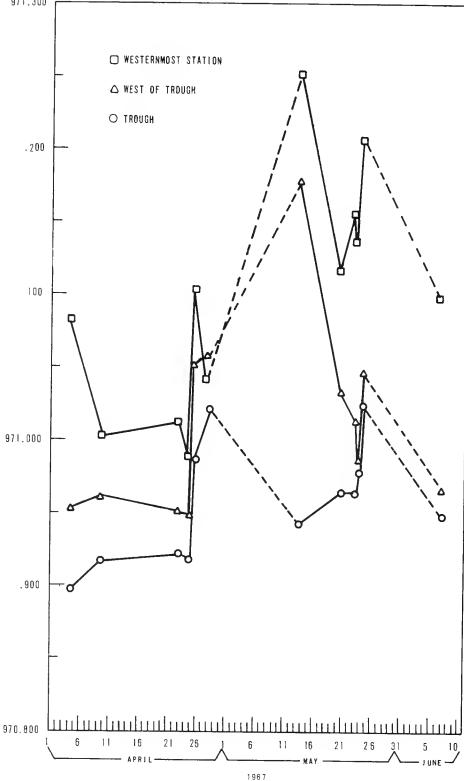


Figure 31. Surface dynamic height of stations in the trough, just west of the trough, and on the Grand Banks, 1967.

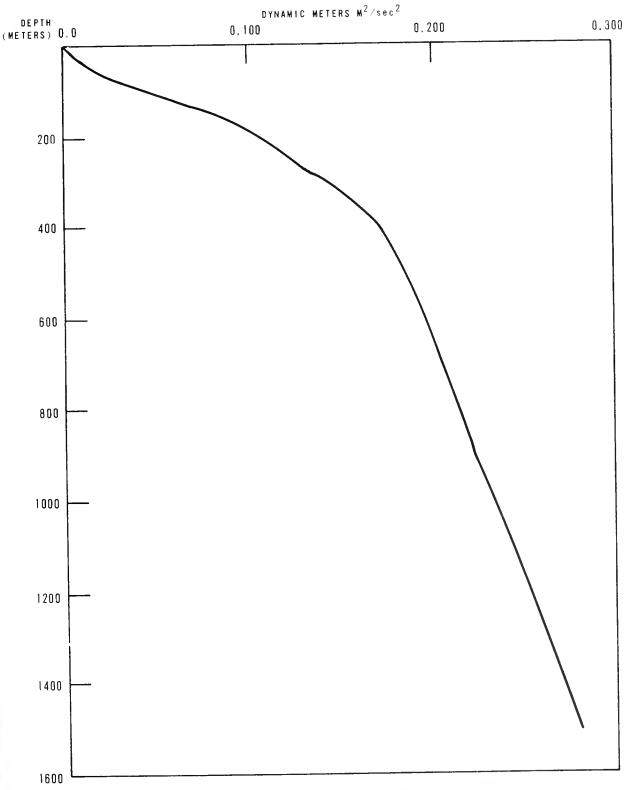


Figure 32. Difference in dynamic height between stations 9928 and 9929.

## Table of Oceanographic Data

The following are the observed and interpolated data for the Coast Guard Oceanographic Unit oceanographic stations taken in conjunction with the International Ice Patrol 1967 in the Grand Banks of Newfoundland area. The data were obtained by the CGC EVERGREEN (WAGO-295) from 3 April 1967 to 28 July 1967. Presentation is from National Oceanographic Data Center Cruise Listing No. 31-8008, 31-8016, and 31-8017.

Note.—A complete description of codes can be found in NODC publication M-2, "Processing Physical and Chemical Data From Oceanographic Stations".

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MESSER	NGR	CAST NO.	CARG	0	DEPTH (m)	1	°C	s	٠/	SIGM	A - T	SPECIFIC	ALY-X10	7	S △ D OYN. M.		LOCITY	0 2 m1/		O4~P g - 01/1	TOTAL-	-р: NO /t уд	- ol/l	NO3-N			рΗ
HR L	1/10	NO.	TYPE	_		_								+	x 103	-			+			+			-		
					0000	1	950	345	5.5	26	71	00.1	3456	1	0000	1	4880		ı		l	1			1		
	094		085		0000		950		552	26		001					4880										
	<i>J</i> ,	4	51		0010		25	348		26		001	2792	2	0013		4912										
			089		0010		25		808	26		001	2792	2	0026		4912 4951										
	~ ^ .	_	\$1		0020 0020		120 120	350	)3 )30	26 26		001	2172	۷	0020		4951										
C	009	ל	089		0030		080	34		26		001	2788	8	0039		4937										
			089		0030		080		940	26						_	4937										
			\$	тΟ	0050		103	35		26		00	12568	R	0064		.4949 .4949										
			089		0050 0075		103 199	35 35	030 28	26 26		0.0	12504	4	0095		4990										
			08:	TD S	0075		199		280	26						1	4990										
				10	0100	1	150	35			83	00	1248	7	0127		4976										
			08:		0100		150		170 075	26 26							14976 14959										
			08 08		0105 0116		104		075		85						4960										
				3 TD	0125		985		84	26	87	00	1215	0	015		14917										
			08	S	0125		985		840		87	00	1189	0	018		14917 14804										
				TO	0150		694 694		30 298		90	00	1109	0	010		14804										
			08 08		0150 0165		625		205		91						14777										
		08		0175	1	010		095		03						14945											
			ΤD	0200		018		14		05	00	1065	0	024		14945 14945											
		08		0200 0215		018		140 223		08						14955											
		08	TD	0210		940		15		19	00	0939	7	029		14925											
		08	S	0250		940		150		119	00	0792	2	033		14925 14816											
				TD	0300		648		78 780		734	Ų0	0172	۷.	000		14816										
			08		0320		697		890		136						14840	1									
			08		0365		400		590		148						14723 14774										
			08	-	0382		510		765 66		750 752	0.0	0609	16	040		14735										
			08	TD	0400 0400		)412 )412		658		752	00	,				14735										
			0.6		0420		426		705		755						14745										
			OB		0425		1493		815		756						14775										
			0.6		0435		)480 )514		+810 •901		757 760						14792										
			06	55 510	0470 0500		0513		92		762	00	0540	) 4	046	5	14797										
			06		0500	(	0513	3	+923		762	^ -	VO 6 12 -	7 1	051	4	14791										
				STD	0600		)477		496 4958		769 769	00	0482	. 1	1 ~ 0	U	14799										
			06	35 5 T D	0600 0700		)477 )446		+950 494		771	0.0	0470	)4	056	4	1480	2									
			08		0700		0446	3	4938	3 2	771						1480										
			5	STD	0800		3438		496		774	00	045	26	061	U	14816										
				85	0800 0900		0438 0430		4963 496	_	774 774	0.0	0454	45	065	5	1482										
				STO BS	0900		0430		496	1 2	774						1482										
				STO	1000		0422	3	497	2	776	00	0045	16	070	0	1484										
				BS.	1000		0422 0419		496! 496!		776 776						1484										
				85 85	1020 1030		0415 040]		494		776						1483	9									
			STO	1100		041	1 3	497	2	777	0	0044	53	074	• 5	1485											
			0	85	1100		041		496		777	^-	0045	04	079	an .	1485 1487										
				STD	1200 1200		040° 040°		497 496		777 777	U	0045	U 4	0.0	, 0	1487										
				BS STD			038		495		778	0	0044	66	08	35	1487	7									
				85	1300		038	4 3	494	5 2	778					3.0	1487										
				STO			038		495		779	0	0044	69	081	50	1489										
				BS	1400 1500		038		495 496		779	0	0044	94	09	24	1490										
				STD BS	1500		037		495		779	-	'		-		1490	8									

CTRY IO.	SHIP	LATITUDE	LO	AGITUDE ACTION	MARSOEN SOUARE	STATION M DI	TIME (1)	YEAR	CRU		2'ROTAN		DEPTH	DEFI	ä	WAVE BSERVAT	ions	WEA- THER	CLOUD			10DC ATION
CODE NO.	-	. 1/		17.10			HR.1/	0	- NO	0.	NUMBER	_	вотто	N S'MPL				10000	TYPE AM			NUMBER
31 8008	E V	4134 N	1   05	032 W	150 10 WA	04 03	135	1 -			52 MP. ℃	$\dashv$	3977	1		3   2	2	X4	0 3	1	1	0004
					COLOR	TRANS. DI	K, I c	ED ME	RO+ TER bs)	DRY	WET	COD!	OBS. DEPTH	1 Ances	ECIAL VATIONS							
_					DT	SD 3	_		85	094	089	6	41	<del>  -</del>		-						
[-	MESSENGR TIME	CAST	CARD	DEPTH (m)	r *c	s ·/	Ts	GMA-T	SPECI	IFIC VOLU	ME Z	∆ D	so	UND	O2 ml/	PO	-P	TOTAL-P	NO2-N	NO3-N	\$104-\$	
-	HR 1/10	-	1176				+		ANG	DMALY—X	0/	103	VEL	OCITY	02 (11)	۰ ور	01/1	ا/اه - ولا	υg - ot/l	μg - σ1/l	µg + 01/	
I		1	STO	0000	1429	3563	١	663	0.0	1419	6 O	000	15	059								
	135	· c	BS STD	0000 0010	1429 1429	3562 3563		663					15	059								
		C	BS	0010	1429	3562		663	00	1422	0 0	014		061								
	003		STD BS	0020 0020	1424 1424	3563 3562		664	00	1417	5 0	028		061								
		C	STD	0030	1423	3563	2	664	00	1418	4 0	043	15	062								
		·	STD	0050	1423 1370	3562: 3557		664 671	00	1357	9 0	070		062								
			88 88	0050 0060	1370 1378	35570 35619		671					15	047								
			85	0068	1317	3547	5 2	673 674						052								
		0	STD BS	0075 0075	1390 1390	3571 3571		677 677	00	1302	6 0	104		060								
		0	BS	0085	1398	35739	5 2	678				10:	15	064								
			STO BS	0100 0100	1348 1348	3564 3564(		681 681	00	1277	2 0	136		049 049								
			BS STO	0110 0125	1348 1322	35642 3559		681 682	0.0	1740	1 0	1 / 0	15	051								
		0	BS	0125	1322	35592	2 2	682	00	1268	1 0	168		044 044								
			STD BS	0150 0150	1276 1276	3549 3549(		684 684	00	1260	5 0	199		031								
		0	Bs	0170	1228	35409	2	687						017								
			BS STD	0175 0200	1310 1175	35648 3544		689 700	00	1119	2 n.	259		049 004								
			BS	0200	1175	35442	2 2	700					15	004								
			STD BS	0250 0250	1010 1010	3527 35270		716 716	00	0967	0 0	311		952 952								
			STD BS	0300 0300	0900 0900	3517 35170		727 727	00	0871	2 0	357	14	918								
		0	BŞ	0360	0755	35050	2	740						918 872								
			BS BS	0380 0390	0595 0636	34800		742 745						809 828								
			STD BS	0400 0400	0550	3478	2	746	00	0680	0 04	+34	14	793								
		0	8s	0410	0550 0488	34780 34705		746 748						793 769								
			85 85	0420 0440	0535 0452	34780 34690		748 751					14	791								
		0	BŞ	0460	0510	34810	2	753						759 787								
			85 STD	0478 0500	0510 0581	34830 3499		755 759	001	0576	7 04	97		791 825								
		0	Bs Bs	0500	0581	34990	2	759	301	10	. 5	71	14	825								
		0	BS	0514 0540	0581 0487	34990 34880	2	759 762						828 792								
			BS STD	0545 0600	0502 0495	34930 3495	_	764 767	0.04	05078		51	14	800								
		0	BS	0600	0495	34953	2	767					14	806 806								
			STD Bs	0700 0700	0467 0467	3496 34963		771 771	000	0477	3 06	01		812 812								
			STD	0800	0462	3499	2	773	000	0462	06	48	148	826								
			BS STD	0800 0900	0462 0448	34990 3499		773 775	000	04553	3 n6	94		326 337								
			BS STO	0900	0448	34990	2	775					148	337								
		01	BS	1000 1000	0427 0427	3499 34990		777 777	000	04393	07	38		345 345								
			STD BS	1100 1100	0417 0417	3499 34990	2	778	000	04366	07	82	148	358								
		;	STO	1200	0408	3499	2	778 779	000	04348	08	26	148	358 371								
			3 S 5 T O	1200 1300	0408 0401	34990 3499		779 780	000	04352	0 00	69	148	371 385								
		0.8	35	1300	0401	34990	2.	80					148	885								
			STD BS	1400 1400	0389 0389	3499 34990		781 781	000	04288	09	12	148									
			STD	1500	0383	3499		782	000	)4297	n 9	55	149									

						_				_	^	RIGINA	TOR'S	П.	D E D T L	MAX.		WAY	 √E	WEA		ouc			NODC	
RENCE	SHIP	LATITU	DE	LONG	TUDE	NOCTR	MARSDEN SQUARE	STATION TIA	^E ,	YEAR	CRUISE	ST	ATION		DEPTH TO BOTTOM	DEPTH	08	AV432	TIONS	THER	CO	DES			STATION	N ]
10. NO.	CODE		1/10		1/10	° <u>z</u> –		MO DAY HE			NO.		UMBER	-+-		S'MPL'		T	PER SEA	×o	- 1	3			000	- 5
8008	EV	4151	N.	050	31 W		150 10 WAT	04 03 1	61 1	967	11P	985			3749 NO.	15		4	١١	1 10	1 0	וכו			000	-
							COLOR	TRANS. DIR.	SPEED	METE	R	RY	WET	CODE	OBS. DEPTHS	OBSER1	VATIONS									
							CODE	(m)	FORCE	(mbs	-	DLB .	044	7	40											
							DT	SD 36	508	08		50		_	_			Τ,		TOTAL-	P NO	N	NO3-N	5104-	5.1	_
	MESSENG	CAST NO.	CARC		DEPTH (	m]	r °c	s °/	SIGM	A-T	SPECIFIC	VOLUA ALY-X10	<u>رُة</u> ا	△ D N. M. (10 <sup>3</sup>	. AEFG	DCITY	0 2 ml/		O4-P	μg - α1/			μg + αt/l			Н
	HR 1/10	1				-								-	-			$\top$								
				.	000	n	0426	3328	264	42	001	620	7 0	000	14	656		1	,							
	16	.1	51 0B5		000		0426	33281	264							656										
		•	51	D	001		0410	3329	264		001	599	1 0	016		651										
			085		001		0410 0410	33290 3333	26		001	567	5 0	032		654										
	0.0	13	51 0B5		002		0410	33333	26							654										
	•	-	57	ΓD	003		0430	3340	26		001	537	6 0	047		665										
			083 083		003		0430 0473	33400 33450	26. 26							685										
			T D	005		0345	3343	26	62	001	434	9 0	077		632											
		08		005		0345	33431	26							632											
			08: 08:		006		0268 0287	33400 33460	26 26							610										
			08		006		0259	33460	26	71						599										
			5	T D	007		0342	3360	26 26		00	1306	5 (	111		+637 +637										
	003		0B		007		0342 0444	33600 33870		86						687										
				TD.	010		0280	3384	27	00	00	1070	2 (	14)		+618										
			08		010		0280	33843		00						4618 4656										
			OB S	5 T D	010		0363 0185	33941 3387		10	000	0976	1 (	16	_	4581										
	003		08		012		0185	33869		10						4581										
			08		01:		0160	33924		16	00	0901		)19		4572 4612										
	003		5 08	TD	01		0241 0241	3403 34027		18	00	0901		, , ,		4612										
			08		01		0390	34380	27	733						4686										
			08	S	01		0373	34385		735	00	070	7 /	023		4680 4699										
			S 08	TD	02		0410 0410			740 740	00	010	, 4	<b>0 2</b>		4699										
			08		02		0421	34534	27	742						4708										
				TD	02		0479			746 746	00	066	11	026		4738 4738										
			08 08		02 02		0479 0597			750						4793										
			OE		02		0492			753						4752										
				OT	03		0505			753	00	059	91	029	-	4759 4759										
			0E		03 03		0505 0564			753 757						4790										
			06	-	03		0494			763						4769										
			5	STD.	04		0495			763	00	051	64	035		4773										
			0 E		04 04		0495 0501			763 763					_	478										
				STD	05		0481			766	0.0	049	49	040		4784										
			08	35		00	0481			766	0.0	048	4.7	045		4784										
				STD	06	00	0465			769 769	U	1048	4 /	0+5	-	479										
			0 (	STD		00	0458			772	0.0	046	56	049		480										
				BS		00	0458			772						480 482										
				35		00	0454			772 773	0.0	045	55	054		481										
				STD BS		00	044	3496	4 2	773					1	481										
				STD	0.9	00	042	3496		776	0.0	0044	00	059		l482 l482										
				BS c T N		00	042			776 777	0.0	0043	75	063		1483										
				STD BS		000	041		4 2	777					1	1483	8									
				STD	1 1	.00	039	8 3496	2	778	0.0	0043	21	06		1484 1484										
				BS		200	039 038			778	0	0042	75	072		1486										
				STD BS		200	038		4 2	779						1486	2									
				STD	1	300	038	3 3496		780	0	0043	14	076		14B7 1487										
				BS		300	038 037			780 780	0	0043	37	080		1487 1489										
				STD BS		400 400	031			780						1489	1									
				STO	1	500	037	5 3496	. 2	780		004	84	08		1490										
			0	85	1	500	037	5 3496	4 2	780						1490	, ,									

ID.	SHIP	LATITU	DE	LDNGITUDE	DRIFT	MARSDEN SALUDZ	STATE (0	ON TH	A E	YEAR	CRUISE		TION	DEP	TH	MAX, DEPTH DF		WAVE ERVATION	S	WEA- THER	CLOUE	S		NO STA	TION
ND.		•	1/10	37.10	) =		MO D				NO.		MBER	BDTT	,	S'MPL'S	DIR.	HGT PER	SEA	CODE	TYPE AA		-	NU	M8EF
8008	EV	4210	N   (	05020 W	()	150 20 WAT			82]	1967	I A.	9854 TEMP.	℃	347 NO	- 1	15	34	2 2		l xo	0 3			0	00
						COLOR	TRANS.	DIR.	SPEED	METE (mbs	R DR	Y .	VET COD		s. L	SPECIA BSERVA	AL TIONS								
						DT.	-	36	S11	0.8		-+	72 5	36			$\dashv$								
	MESSENGR	CAST	CAPD		_		Ή_			1	SPECIFIC			-	SOUN			PO4-P	Τ.						_
	TIME (	및 ND.	TYPE	DEPTH	lm)	1 "C	s	٠/	SIGN	1A-1	ANOMA	Y-1107	₹ △ D DYN, ₩ x 10 <sup>3</sup>	1. V	/ELDC	ITY C	2 ml/l	μg = a1/l		OTA L-P	NO2-N ug - ot/l	NO3-N ug - o1/1	SI O4-		pf
							1							$\top$					$^{\dagger}$					_	_
		_	ST			0754	338		26		0015	797	0000		147										
	187	2	OBS STI	000		0754 0745	338		26: 26:		0015	334	0016		147 147										
			085	001		0745	338		26		0012	7,74	0010		147										
	002	2	OBS	001		0650	338		26		0011		***		147										
			STI OBS	002		0712 0712	340		26 26		0014	074	0030		147 147										
			ST	003	30	0738	340	8	26		0013	916	0044		147										
			OBS	003		0738	340		26						147										
			OBS STI	003		0722 0751	341 342		26		0013	195	0071		147 148										
			085	005	0	0751	342	05	26	74				1	148	08									
			OBS	006		0795	343		261		0011	010	0100		148										
			STI OBS	007		0815 0815	345 345		261		0011	948	0103		148 148										
			OBS	008	3.2	0855	345	80	26						148										
			STI			0864	347		27		0010	569	0131		148										
			0BS 0BS	010		0864 0940	347		27						148 149										
			OBS	012		0905	349		27						148										
			STI			0923	350		27		0009	679	0156		148										
			085 085	012		0923 0951	350 351		27 27						148 149										
			ST			0920	351	4	27.		0008	959	0180		149										
			085	015 020		0920	351		27.		0007	7776	0.4.2.3		149										
			STI OBS	020		0780 0780	350 350		27 27		0007	130	0221		148 148										
			OBS	022	24	0707	350	001	27	43				1	148	30									
			STI OBS	0 025		0696 0696	350 350		27		0006	822	0258		148										
			STI			0598	349		27		0006	082	0290		148 147										
			OBS	030		0598	349		27					1	147	99									
			OBS OBS	035		0553 0492	349 348		27						L47. L47.										
			ST			0481	349		27		0004	857	0345		147										
			085	040		0481	349		27						147										
			STI OBS	05 ( 05 (		0456 0456	349		27		0004	587	0392		l 47 l 47										
			OBS	054		0454	349		27						147										
			OBS	056		0425	349		27		0.0.0.	24:	01.5		47										
			STI OBS	060 060		0425 0425	349		27		0004	346	0437		147 147										
			ST			0420	349		27		0004	173	0479		147										
			OBS	070		0420	349		27						147										
			STI OBS	080 080		0407 0407	349		27		0004	170	0521		148 148										
			STI			0403	349		27		0004	210	0563		148										
			OBS	090		0403	349		27		000	1/2	010		148										
			STI OBS			0389 0389	349	61 161	27		0004	142	0604		l 48. l 48.										
			STI	110	0	0385	349		27		0004	183	0646	5 ]	48	44									
			OBS			0385	349		27		0.00	1	0		148										
			STI 085			0375 0375	349	96 961	27:		0004	149	0688		148 148										
			ST	130	00	0375	349		27		0004	228	0730		48										
			085			0375	349		27	80			075	1	148	73									
			STI OBS			0368 0368	349	96 962	27		0004	224	0772		148 148										
			STI			0363	349		27		0004	251	0814		149										
			OBS	150	10	0363	349	61	27					1	149	0.2									

FERE	NCE	SHI						- #	MARSO	DEN	STATIO	N TIM	E	YEAR		ORIGINA			DEPTH	MAX.		W A '	VE NONS	Ti	EA-	CLDUE				NODC
Y E	ID.	COL	'	.ATITUI	DE 1/10	LONG	1/10 1/10	DRIFT	10°			Y HR.	1/10	TEAK	CRUIS NO.		TATION UMBER		воттом	OF S'MPL			PEP SE		O DE	TYPE A A				4UM8ER
+		-	, ,	. 220		050	20 W	+	150		04 0	7		1967	111	P 98	5.5		2834	15	3	4 2	2	,	x 2	0 3				000
1 8	300	<b>5</b> , E	V   4	230	M 1	050	720 W	1) [		WA	1 8 3	WI	SPEED	BAR	0-	AIR TEA		VIS	NO. DBS.		CFAL /ATION	15								
									-	CODE	(m)	OIR.	FORCE	(mb	1)	BULB	072		3 O	_		-								
									, I	DΤ	SD	36	511	0.8	1	072			-			1	04-8	TOTA		NO2-N	NO <sub>3</sub>	_N	5104-5	
		AA ESS	ENGR .	CAST NO.	CAR		DEPTH	lm1	ī	·c	5 *	٠.	SIGA	1 A A		MALY-X)	ME D	△ D N. M. 10 <sup>3</sup>	. AEF	OCITY	02 17		7 * 01/1	pg -		NO2-N			na - a <sub>1</sub> ,	
		HR		-					-		-	_			_		-		+-									_		
		1	ı	-	S	TO I	000	00	0:	358	331	6	26	39	00	1648	5 0	000		626			,							
			205		οв		000	0		358	331		26							626										
						TO	001			315	331		26 26		00	1623	5 0	016		609										
					ОВ	_	001			315 310	331 332			46	٥٥	1580	5 0	032		609										
			002		OB	T D	002			310	331		26		00	1,500	_	0,2,2		609										
			002		-	TD	003			410	337			80	00	1258	3 0	047	14	661										
					08		003	30	0	410	337			80						1661										
					08	S	004			430	338			86						672										
					08		004			400	338 338		26	85 06	0.0	1013	5 0	069		+659 +588										
					S OB	TD	005			229 229	338			06	00	,1013	, (			1588										
						TD	00			362	342			23	0.0	0850	7 0	093	14	+654										
					ОВ		00		0	362	342	30	27	23						654										
						TD	010	00		610	346			27	0.0	0826	1 0	114		4766										
					08	S	010			610	346			27		7		.122		4766 4813										
						TD	01			708 716	348			34	00	0763	00 (	133		4817										
					08		013			716	349			35						4820										
					08	TD.	01			725	349			738	0.0	0731	6 (	152		4825										
					0.6		01			725	349		27	38						4825										
					S	TO	02			650	349			148	0.0	00646	0 0	18:		4803										
					08		021			650	349			48	0.0	0.50		. 21.		4803 4761										
						10	0.2			529	348			754	00	00590	)9 (	21.		4761										
					0.6		02			529 525	348 348			754 756						4761										
					06		02			552				756						4773										
						STD	03			474		34	2	160	0.0	0053	11 (	240		4747										
					0.6		03	00		474	348			760						4747										
					0.6		03			505				764	_					4765										
						STO	04	-		475				768	0.0	0046	98	129		4765 4765										
					OE	35 510	04	00		)475 )465	-	941		768 771	0.0	0044	59	34		4778										
					08			00		465		971		771				,		4778										
						STD	-	00		)467				774	0	0043	22	8 t C		4796										
					0		06	00	0	467	35	009		774				- / -		4796										
						STD	_	00		457				777	01	0041	25	042		4808 4808										
						BS		00		457		034 13		777 779	0	0040	15	046		4817										
						STO BS		00		)438 )438		032 032	-	779	U	J U 4 U		<b>,</b> , 0		4817										
						STD		00		0421		-		779	0	0040	58	050		4826										
						BS BS		00		0421	35	012	2	779						4826										
						STD		00		0412				780	0	0040	75	054		4839										
						BS		000		0412		8 00		780	_	0040	2.1	059		4839										
						STD		00		) 397 ) 397		00 003		781 781	U	0040	<b>4</b> 1	0 7 9		4850										
						BS STD		00		0383				783	0	0039	46	063		4860										
						81 <i>0</i>		200		383		002		783		,			-	4860										
						STO		300		382				783	0	0040	29	067		4877										
					0	ВS		300		0382		001		783	-			۸7.		4877										
						STD		+00		374				784	0	0040	15	071		.4890 .4890										
						BS		00		0374 0369		001		784 784	0	0040	35	075		4905										
						STD BS		500		0369		001		784	0	5040		•		4905										

FERENCE	SHI		LATITU	DE		ITUDE	DRIFT	MARSDEN SQUARE	STATION TI	ME	YEAR	ORIGI CRUISE	STATIO	_	DEPTH	DEPTI	H 08	WAVE SERVATION	5 T	VEA-	CLOUD			NOD	
ID. NO.	COE	11	*	1/10	•	1/10	, z	10" 1"	MO DAY H	R.1/10		NO.	NUMBE	R	BOTTON	S'MPL				H ER ODE	TYPE AM			NUMI	BER
1800	a E	/ /	4240	N	050	20 W		150 20			1967		356		2195	1 15	34	2 2		x 2	0 3			00	0/
								COLOR		/IN D SPEED	BAR	J*	MP. °C	vis.	NO. OBS.		ECIAL								
								CODE	TRANS DIR	OR FORCE	(mbs		BULE		DEPTHS	OBSEK	2 NOET AV	']							
	_				-,-			DT	SD 36	508	08	5 050	05	0 6	31			1							
	A4 E 5 S	NGR .	CAST	C ARD TYPE	,	DEPTH	(m.)	1 °C	s ·/	SIG M	A-T	SPECIFIC VOL	JANE 107	₹ △ D DYN. M X 10 <sup>3</sup>	. 50	UND	0 2 ml/	/1 PO4-P	TOTA		NO2-N	NO3-N	51.04~		pŀ
	HR	/10		- 1176	4				-	-		ANOMALIS		x 10 <sup>3</sup>	VEL	DCITY		µg • 01/1	≥g ·	1/10	μg - σ1/l	yg = al/l	λδ − al	1	p,
		ļ	i	ST	n	000		0515	3330	26	2.2	00169		2000	1.			Ī	1					!	
		218		085		000		0515	33299	26		00169	, ,	0000		694									
				ST		001	0	0495	3330	26		00167	3 8	0017		687									
				OBS		001		0495	33299	26						687									
		003		ST OBS		002		0380 0380	3325 33252	264 264		00159	99	0033		640									
	,	, 0 )		ST		003		0295	3326	26		00151	70	0049		640									
				OBS		003		0295	33263	26						605									
				51		005		0290	3338	266		00142	55	0078		608									
			0BS 51		005		0290 0232	33380 3369	266 269		00114	. c	0110		608										
			085		007		0232	33690	269		00114	) )	0110		591 591										
			ST		010		0420	3433	27		00083	+3	0135		684										
			OBS		010		0420	34331	27						684										
			\$1 085		012		0483 0483	3449 34486	27:		00078	78	0155		717										
			085		013		0501	34560	27:						717										
			ST		015		0501	3460	27		00072	•0	0174		730										
			085		015		0501	34602	27						730										
			5 <b>T</b> 085		020		0501 0501	3475 34751	279		00061	35	0208		740										
			085		022		0551	34889	27						740										
			QBS		023	5	0551	34889	279						768										
			085		024		0502	34829	27						749										
				ST OBS		025		0510 0510	3484 34840	279		00056	34	238		753 753									
				ST		030		0520	3490	27		00054	6	0265		766									
				085		030		0520	34900	275						766									
				085		035		0488	34902	276						762									
				ST OBS	U	040		0515 0515	3497 34968	276 276		00049	2	0317		782 782									
				085		043		0472	34957	276						770									
				ST	D	050	0	0457	3496	27		00044	4	365		774									
				085		050		0457	34955	27:						774									
				085 ST		057		0475 0447	34972 3497	277		000438		0409		793 787									
				OBS		060		0447	34968	27		00043	00 1	7409		787									
				ST	D	070	0	0458	3500	27		00043	9 (	3453		808									
				085	_	070		0458	35000	27						808									
				S1 085	D	080		0450 0450	3503 35030	271		00041	77 (	3496		822									
				ST	D	090		0420	3502	278		000396	4 1	0536		822 826									
				085		090	0	0420	35023	278		345-71				826									
				ST	D	100		0379	3497	278		000396	3 (	)576		825									
				085 51	D	100		0379 0378	34969 3497	278		00040		3617		825									
			08\$		110		0378	34969	278		000403	9 (	0616		841 841										
			ST		120		0375	3497	278		000408	2 (	)657		857										
			085		120		0375	34970	278					14	857										
				51		130		0368	3497	278		000408	9 (	)698		870									
				085 ST		130		0368 0365	34969 3497	278		000413	5 (	739		870 886									
				085	_	140	0	0365	34969	278		50071		, , ,		886									
				ST	٥	150		0362	3497	278	2	00041	9 (	780	14	902									
				OBS		150	0	0362	34969	278	32				14	902									

ID.	SHIP	LATITU	- 1	LON	OLINDE BULLIS	MAR	ARE	,	ION TIM	Y	EAR	CRUIS	ORIGIN	STATION	ON	DEPT	Otri	н ов	WAVE SERVAT		WEA- THER CODE	CLOUD CODES	ī	5	NODC TATION TUMBER	
NO.			1/10		1/10 =	10"	1					+	+-	_		0.20			1 1-	-		1 1	_		0000	.1
008	EV	4250	N	05	020 W	150			03 2:	_	967	11	P 98		<u> </u>	028	4 0.	2 34	1   2	١ :	[ X4	0 3	1	1	0009	1
							WAI		WI	SPEED	BAR			MP.	- VIS	NO.		ECIAL								
							COLOR	TRANS.	DIR.	OR	METI (mb)		DRY BULB	BU		DEPT		VA TIONS								
										_	09	1	040	1	40 3	27										
							DT	SD	36	508	09	1	040	10.					<del>-</del>			1		т——	1	-
	MESSENGR	CAST	CAR	.	DEPTH [m]	١,	*℃	s	٠/	SIGMA	- T	SPECI	FIC VOL	JME 107	₹ A C	l.   .:	OUND	O 2 m1/			TOTAL-P	NO2-N	NO3-N			
	TIME 0	T NO.	TYP	E	001111		-					ANU	MALY-I		x 10 <sup>3</sup>	l_v	ELOCITY		νg -	01/1	νg - ο1/1	l/10 - gu	ا/اه - وبر	μg - 01/I	-	_
t														Ĭ												
I			٠,	' סד	0000	١ .	835	33	76	262	7	00	1763	37	000	ວ່ 1	4826		'							
	235	5	08		0000		835		755	262						1	4826									
			08	_	0005		810	33	723	262						1	4817									
				ΤD	0010	C	879	33	96	263	5	00	168	۱4	001	7 1	4847									
	002	002		s	0010	Ċ	879	33	955	263	5					1	4847									
				s	0015	(	700	33	700	264	2					1	4776									
				s	0019	(	0570	33	500	264	3						4722									
				TO	0020	(	0623	33	59	264	3	0.0	160	30	003		4745									
				S	0025		0840		000	264							4836									
			S	ŢΟ	0030	(	980	34		264		0.0	157	26	005	-	4893									
				S	0030		980		318	264							4893									
				S	0040		0880	-	280	266							4857									
				ŤΟ	0050		1012	-	68	267	_	0.0	136	0 /	007		4912									
				S	0052		1038	-	760	267							.4923 .4843									
				S	0055		0830	-	470	268		0.0			011		4631									
				TD	0075		0324		68	268		00	123	UU	011	-	4631									
				S	0075		0324		680	268							4610									
				S	0077		277		640 630	268 269							4547									
				S	0087 0095		0130		750	269							14603									
				STD	0100		0213		83	270		0.0	102	59	013		4589									
			0B		0100		0213		830	270		0.	,	-	0		4589									
			08	-	0110		0330		990	270	-						14643									
			08	-	0112		0352		020	270							14653									
				TD	0125		0638		44	270	-	0.0	100	66	016		4779									
			08		0125		0638		440	270		•					14779	)								
			08		0133		0703		590	273							14808	ļ								
				TD	0150		0561		52	272		0.0	085	37	018		14753									
			08		0150		0561		522	272					-		14753	3								
			08		0161		0719		839	272							14822	?								
			08		0175		0711	34	889	273	34						14822									
			ОВ	35	0182	1	0498	34	620	274	• 0						14734									
			08	s	0197		0470		578	274							14725									
			5	TD	0200		0440	34	57	274	+2	0 (	0068	60	022		14712									
			0.8	35	0200		0440	34	570	274	+2						14712									
			08	35	0210		0330	-	498	274							1466									
			S	OTE	0250		0310		49	274		0.0	0062	02	025		14669									
			0.8		0250		0310	2/	489	274	. 0						14665	,								

REFERENCE CODE IO. CODE NO. SHIP CODE LATITUE	1/10	GITUDE 20 1	50 30	TRANS. DIR.	1,1/10 YEAR 1,1/10 1967 IND BARC SPEED METE	A IR TEMP.	ON BER	0098 NO.	OF OBSE	NAVE RVATIONS HGT PER SEA 2 2	WEA- THER CODE	CLOUD CODES		STA NU	ODC TION MBER
			CODE	5D 36	508 09	-	44 3	09							
MESSENGR CAST	CARD TYPE	DEPTH (m)	T °C	s 1/4.	SIGMA-T	SPECIFIC VOLUME	≨ △ D DYN. № x 10 <sup>3</sup>	SOLIND		PO4-P µg - 01/I	ΤΟΤΑ L = P μg + ατ/Ι	NO3-N ug - al/l	NO3-N ug - 01/1	\$1 O4=\$1   1\10 = gu	рн С
010	STD OBS STD OBS STD OBS OBS OBS OBS OBS OBS STD OBS	0000 0000 0010 0010 0020 0020 0030 0035 0037 0040 0050 0060 0075	0170 0170 0148 0148 0128 0121 0121 0117 0137 0082 0051 0030 0025	3296 32960 3299 32985 3301 33020 33094 33112 33115 3323 33307 3334 33358	2653 2653 2656 2667 2675 2677	0016517 0016184 0015884 0015750 0013750 0012789	0000 0010 003 004	1454 5 1453 2 1452 1452 1452 1452 1453 1451 8 1450 1440	134 34 227 227 225 225 236 11 100 993						
	OBS	0085	0022	33358	2019										46

CTRY	ID.	SHIP	LATITU	DE 1/10		GITU OE	DRIFT	MAR SOU	ARE		TION IGMT	}		YEAR			ATOF	) N	$\neg$	OEPTH TO BOTTOM	DEPT OF S'MPL	H c	3280	WAVE RVATIO	SNC	WE THE COS	R	CLOUE	5		NOE STATI	ION
	8008	EV	4310		0.5	020 1	•	150		04	04	0.2		047	+-	-		EK	1	0.0.0.4	1	_	$\neg$	H GT PER		-	-+	TYPE A A				
71	0000	4 FA I	4510	14	0.5	020 1	W	150	WA			WING		967	1	1P 98	59		-1	0084	01	1 3	٩١	3   6	l	l X	4	013	I	- 1	00	111
									COLOR	TRAN		51	EED	METE	R	DRY	wi	T c	VIS.	NO. OBS. OEPTHS		ECIAL VATION	15									
									COOL	(m)	-	FC	RCE	(mbi	1	BULB	BU	.в		Utrins			_									
									01	SC	19	9 \$	05	08	8	033	0	33	3	07												
		MESSENGI TIME HR 1/10	약 NO.	CAR		OEPTH	(m )	г	*℃		٠4.		SIGMA	A —T		CIFIC VOLU		₹ Z DYN X	. M.		UND	O <sub>2</sub> m	1/1	PO 4-	- 1	10TAL- 10 - 01.		NO2-N vg - at/t	NO3-N			ρΗ
									_	1		$\top$								_			_	1	_		$^{\dagger}$			1	+	
		1	, ,	s	то	00	00	٠ ٥	374	32	64	'	259	6	0	02054	5	00	00	14	626			l	- 1				1	1	'	
		02	1	08		000			374		2640		259	6						14	626											
				08		000			373		639		259								626											
					TD	00			337		63		259		0	02032	9	00	20	14	611											
	02		1	08		00			337		626		259								611											
					TO	00.			192		95		263		0	01678	4	00	39		554											
				08		00			192		945		263								554											
					ŦΟ	00			100		04		264		0	01548	0	00	55		516											
				ОВ	_	00			100		1039		264								516											
					TO	00			029	33	340		268	2	0	01233	13	00	83	14	492											
				ОВ		00			029		3401		268	2						14	492											
				08	\$	00	60	0	028	33	401		268	2						14	493											

CODE NO.	COOE	LATITU •	OE   1	LONGITUDE 1/10		ARSDEN QUARE	\$1.4 MQ	ATION IGM1		YEAR			STATION	)N	DEPTH TO BO110W	DEPT OF S'MPL	085	WAVE ERVATIONS	WEA- THER CODE	CODE	S	S.	NODC TATION	
318008	EV	4439	N (	04909 W	14	- A	04				7 1	IP 98	360		0063			2 2	X2	0 3			0012	
						COLOR	_	S. DIR	WINO SPEED OR FORCE	ME	FER	AIR TE DRY BULB	MP. TO	VIS.	NO. OBS. OEPTHS	SP	ECIAL VATIONS		, ,,,	. 0.3	,	,	00121	
,		, ,	_			DT	51	0 16	5 51	0	37	020	02	0 0	05									
	MESSENGR TIME C HR 1/10	CAST NO.	CARD TYPE	DEPTH	n)	т <b>°</b> С		s •/	\$IG	1- AM		CIFIC VOLU		≨ ∆ D DYN. M x 10 <sup>3</sup>		OCITY	O 2 ml/1	PO4-P ug - 01/1	†ΟΤΑ L = P υ φ + ο t/l	NO2-N µg - 01/1	NO3-N yg - ai/i	SI O4=Si 1/10 + Qu	ρН	500
							1																	t
	110	1	\$T0	000		·0072		301		55	0	01490	) 4	0000		432								•
	110	,	STE			0072		301( 301		55 55	٥	01489	00	0015		432								
	HR 1/10		085	001		0072		3010		55	•	0140,	, ,	0015		434								
	110		STO			0072		301		55	0	01489	4	0030		435								
	001	l	08s ST0	002		0072		3010		55						435								
			085	003		0090		301 3010		56	0	01482	8	0045		429								
			STO			0097		309		62	0	01421	9	0074		429 430								
			085	0050	-	0097	3 3	3085		62	•	•		,		430								

RENCE ID.	SHIP	L	ATITUD		LONGITUDE	5 201	SDEN JARE	10	ON TIME	YEAR	CRUI		ATIO	N	DEPTH TO BOTTO	DEFIN	085	WAVE SERVATH		WEA- THER CODE	CLOUI	S		NODC STATION NUMBE	N
NO.	_	+		/10	1/10	- 10	+		AY HR.I.			_	_		1.00	_		1			1			001	-
8008	ΕV	4	436	N (	)4854 W	149			4 12		7 1 1	P 986			1280	12	1 1 9	3 2	1	X 2	0 3	)		001	,
							COLOR	TRANS.	DIR. S	PEED ME	TER	DRY BULB	WE!	VIS	NO. OBS. DEPTH	0.05501	CIAL VATIONS								
							DT	SD	F	ORCE III	37	050	05	_	29	+-									
			T					1			SPECI	IFIC VOLU	A.F.	₹ ∆ D DYN, M	1 50	DUND		POA	-P	FOTAL-P	NO2-N	NO3-1	SIO	-51	
	MESSEN		NO.	CAPD	DEPTH (m)		1 °C	\$	٠/	SIG M A - T	ANC	DMALT-11	7	DYN, M x 103		LOCITY	O 2 m1/1	₽Q .	01/1	yg = a1/1	ug = 01/			01/I P	H
	HR 1/	10				-		+			+		+												
		1		c +1	0000	١.	0582	337	70	2663	. 00	1418	1	0000	1.	4727		1	1		1	1	1	1	
		23		STI OBS	0000		0582	337		2663	00	,1410	1	0000		4727									
	1	23		51			0578	337		2664	0.0	1413	9	0014		4727									
				085	0010		0578	337		2664	•					4727									
	0	03		085	0012		0576	33		2664					1 -	4727									
	•	- 2		ST			0550	338	36	2674	0.0	1317	6	0028		4719									
				085			0550		163	2674						4719									
				5 T			0523	339		2680	0.0	1261	3	0041		4710									
				085			0523	_	399	2680			,	0011		4710									
				ST			0475	34(	00 003	2694 2694	0.0	)1133	Ţ	0065		4695 4695									
				OBS			0475	_	JU 3 J50	2704						4670									
				085			0410	340		2722	0.0	0864	2	0090		4573									
				5T	-		0180	_	010	2722	0.0	00004	-	007		4573									
				085 085			0128		985	2723						4550									
				ST			0134	341		2724	0.0	00841	7	0111		4556									
				085			0134		998	2724					1	4556									
				085			0150		060	2728					1	4566									
				5.1			0325	34		2736	0.0	00735	7	013	. 1	4648									
				OBS			0325		342	2736						4648									
				SŤ			0285	34		2746	0.0	00639	6	014		4636									
				OBS			0285	_	424	2746						4636									
				085			0273		438	2748						4632 4652									
				085			0310		539	2753						4651									
				OBS			0303	34	538	2754 2756	0.0	00554	۵	017		4669									
				ST			0337		605	2756	0	00224	,	0-1		4669									
				0BS			0363	34		2758	0.0	00543	3	020		4690									
				085			0363		660	2758	,		-			4690									
				ST			0387	34		2760	0	00525	8	023		4709									
				085			0387	-	722	2760						4709									
				ST	-		0455	34	86	2764	0	00504	8	028		4756									
				OBS	0400		0455		863	2764				_		4756									
				ST			0452	34		2768	0	00477	1	033		4772									
				OBS			0452		910	2768						4772									
				ST			0423	34		2773	0	00438	13	037	-	4776									
				085			0423		931	2773	_	00/20		04.2		.4776 .4787									
				51			0408	34		2775 2775	0	00429		042		4787									
				OBS			0408		933	2775	0	00438		046		4805									
				51			0411		94 939	2775	0	00438		0.40		4805									
				0B5			0411	_	95	2777	n	00426	0	050		4817									
				S1 089			0401		952	2777	0	00420		0-0		4817									
				S1			0384		96	2779	0	00412	26	055		4827									
				083			0384	_	955	2779	·		-			4827									
				51			0383	_	96	2780	0	00415	5 2	059	2 1	4843									
				083			0383		962	2780					1	4843									
				5			0373		96	2781	0	0041	17	063		4856									
				089			0373	34	962	2781					1	4856									
							0371		962	2781						14863									

	,							_																				
CTAY IO.	SHIP	LATITU		LONG		NOCTR	SOUARE		STATION 1		YEAR	CRU	JISE	STATION		1	TO TO	MAX. DEPTH OF		WAVE ERVATIO		WEA- THER	CLOUD			NO STAT		
318008	EV	4434	1/10 N	048	1/10	-	10' 1	_	04 04	139	196	_	$\rightarrow$	NUMBEI	!	-	103	5°MPL'S	_	3 2	SEA		TYPE AM	T .		NUA	-	
			,					WAT	ER	VINO	BA	RO-	AIR TE	MP. *C	VIS.	Τ	NO.	SPEC		1312	ı	X 2	013	1	ı	00	14	
							COL		TRANS DIR.	SPEEI OR FORC	1111		BULB	BULB	COD		OBS.	O8SERV/	TIONS									
							D	T	SD 18	51	3   0.	24	061	06		٠,	35								,			$\overline{}$
	MESSENGI TIME HR 1/10	of NO.	TYP	E	OEPTH (	π)	ī °C		s .4.	SIG	MA-I	SPEC	CIFIC VOLI	JME 107	χ 10 <sup>3</sup>	۸.	VELO(		0 2 ml/li	PO 4-		101AL-P ug - 01/1	NO2-N ug - al/l	NO3-1			рΗ	C
														$\top$							$\top$				†	+		$\parallel$
	13	9	5 0 B	70 S	0000		039 039		3373 33725		80 80	0(	01252	!5 (	0000	)	146											
			ОВ		0000		039		33725	26	680						146	49										
	00	3	0B	TD S	0010		036 036		3372 33718		683 683	0 (	01229	)5 (	0012	2	146											
			08	S TD	001		030 037		33718 3398	26	88	^	01065			,	146	14										
			OB.	S	0020	)	037	0	33980		703 703	U	01042	1 (	024	•	146											
			OB.	S TD	0029		045 041		34140 3418		707 714	0.0	00938		034		146 146											
			OB.	S	0030	)	041	7	34180	2.	714	0,	00/50		,,,,,	•	146											
			08. S	S T D	0040		040 036		34320 3429		127 128	0.0	00804	.0 (	051	1	146											
			QB:	S	0050	)	036	4	34292	27	128	•	0000		.0 ) 1	•	146	52										
			0B:		0060		043 051		34460 34620		135 137						146											
				TO.	0075		052		3469	27	42	00	00679	9 (	070	)	147	30										
			0B:		0079		052 060		34690 34850		142						147											
				T D	0100		060		3486		146	00	00640	6 (	086	5	147	65										
			08: S	5 TD	0125		060 036		34862 3458		746 751	0 (	00589	7 (	102	2	147											
			OB:		0125		036 039		34580 34640		751 753						146											
				T D	0150	)	031		3456		154	00	00563	4 (	116	5	146 146											
			0B:		0150		031 032		34555 34619		54 58						146 146											
			S	τD	0200	)	035	5	3465	27	758	00	00538	6 (	143	3	146											
			0B:		0200		035 040		34650 34750		'58 '61						146											
			S.	T D	0250	)	045	5	3486	27	64	00	00492	3 (	169	)	147	31										
			0B:		0250		045 043		34858 34855		64						147											
			S1 0B3		0300		047		3492 34915	27	66	00	00480	1 0	194	,	147	49										
			\$1		0400		046		3493		66 68	00	00467	2 0	241		147											
			OBS		0400		046		34932 3497		68 72	0.0	00439	7 0	286		147											
			OBS	5	0500	)	045	5	34965	27	72						147											
			S1 0B3		0600		041		3495 34950		75 75	00	00419	5 0	329	•	147											
			51	O	0700	)	040	1	3495	27	76	00	00412	3 0	371		147											
			085 S1		0700		040		34945 3495		76 77	٥٥	00412	5 0	412	,	147											
			OBS	5	0800	)	039	5	34948	27	77						147	98										
			S1 0B3		0900		038		3495 34950		78 78	00	00412	0 0	453	i	148 148											
			Si	ro	1000		038	4	3495	27	78	00	00416	3 0	495	,	148	27										
			OBS		1000		038		34950 3496		78 79	00	00424	<b>7</b> 0	537	,	148											
			089	5	1100	)	0389	9	34959	27	79						148	46										
			51 0B5		1200		037		3496 34956		80	0.0	00416	1 0	579	,	148 148											
			S1	D	1300	)	037	2	3496	27	80	00	00423	4 0	621		148	72										
			085 S1		1300		0377		34956 3496		80 81	0.0	00423	6 N	663		148											
			OBS	5	1400	)	0366	6	34957	27	81						148	86										
			S1 0B3		1500 1500		0363		3496 34958		81 81	00	00427	0 د	706		149											

	,				<del></del>				_	т—	ORIGINA	IDP'C			MAX.		WAVE		WEA	CLOUD			NODC
TRY ID.	SHIP	LATITUI	DE	LONG	ITUDE NOCTA	MARSDEN SQUARE	(6	N TIME	YEAR	CRUISE	5	IATION		DEPTH TO BOTTOM	DEPTH		WAVE ERVATION		WEA- THER CODE	CODES			NODC TATION NUMBER
			1/10		17 10		MD DA	Y HR.1/1		NO.	-	UMBER	-+	3200	S'MPL'S	DIR. 18	3 2	SEA	x 2	0 3			0015
318008	EV	4431	N	048	27 W	149 48	_	WIND		1	AIR TEN		,	NO.			12121	]	^ _	012	1	1	0013
						COLDR		DIR. SPI	SAK	ER -	DRY BULB	WET BULB	VIS.		DBSERV	ATIONS							
						DT	-	18 52			83	078	5	34									
		-				101	1		.4   00	T -		_	-	7	JND		PO 4 - P		TA L P	NO2-N	NO3-N	5104-5	
	MESSENGR TIME	CAST	CAR		DEPTH (m)	1 ℃	2 .	٠. ١	IGMA-T	ANON	C VOLUI	y Dy	∆ D. N. M.		CITY	O 2 m1/l	pg - 01/		g = a+/1	μg = σt/i	μg - α!/!		PH
	HR 1/10	1		-										1									
	1	1	s.	то	0000	0909	340		2641	00	1628	3 0	000		859								
	15	3	0B		0000	0909 0887	340 340		2641 2644						859 852								
			0B:	7 O	0010	0814	340		2656	00	1490	1 0	016		824								
	000	6	OB:	S	0010	0814	340		2656						824								
			0B;	S T O	0012	0728 0720	340 340		2663 2663	00	1418	0 0	030		791 789								
			OB;		0020	0720	340		2663	•		_		14	789								
			08	S	0023	0779	341		2665	00	1291	, o	044		814								
			S 08	T D S	0030	0730 0730	342 342		2677 2677	00	4671	→ U	<b>-</b> → →		797								
			08	S	0035	0827	344	69	2684						838								
			OB		0040	0695 0583	344 342		2697 2701	00	1062	8 0	067		787								
			0B	T0 S	0050	0583	342		2701	00			- 0 .		742								
			08		0060	0655	344		2706						775 810								
			OB S	S TO	0065 0075	0734 0710	346 346		2715 2 <b>71</b> 8	00	0909	2 0	092		803								
			08		0075	0710	346		2718	-			- , -	14	803								
			08		0089	0648	347		2729		0792		113		781 809								
			S 08	T D	0100	0710 0710	348 348		273 <b>1</b> 2731	00	0192	.0 0	113		809								
				ΤO	0125	0675	348	19	2739	00	0719	4 0	132		800								
			08		0125	0675 0650	348 348		2739 2742						800 791								
			0B 0B		0132	0705	350		2745						817								
				TD	0150	0690	350		2747	00	0646	7 0	149		811								
			08	_	0150 0200	0690 0573	350 349		2747 2757	00	0555	6 0	179		811								
			QB	TD S	0200	0573	349		2757	•	0,,,,			14	772								
			S	TD	0250	0550	349		2761	00	0525	2 0	206		771								
			08	S TD	0250 0300	0550 0490	349	962 97	2761 2768	0.0	0454	1 0	231		+771 +755								
			08		0300	0490	349		2768		•			14	+755								
			S	TD	0400	0447	349		2772	0.0	0430	8 0	275		4753 4753								
			08	5 10	0400 0500	0447 0423	349	950 95	2772 2774	00	0417	78 (	31.		4760								
			08		0500	0423	349	945	2774					14	4760								
				TO	0600	0409	34		2775	00	0414	+8 (	359		4771 4771								
			0.8	35 310	0600 0700	0409 0396	34	941 94	2775 2776	0.0	0410	3 (	400		4782								
			OB		0700	0396	340	940	2776					14	4782								
				0.0	0800	0384 0384	34	94 940	2778 2778	00	0405	57 (	)44		4793 4793								
			08	55 5TD	0800	0380	34		2778	00	041	00 0	48		4808								
			08	35	0900	0380	34	940	2778					14	4808								
			0 E	010	1000	0377 0377	34	9 <b>4</b> 9 <b>4</b> 0	2778 2778	00	0415	3 (	)52		4824 4824								
				55 510	1100	0374	34	94	2779	0.0	0420	)4 (	)56	5 1	4839								
			0.6	35	1100	0374		940	2779			20 /	160		4839 4855								
			0.6	5T0 35	1200 1200	0371 0371	34° 34	95 950	2780 2780	O C	0418	5U (	000		4855 4855								
			5	STD	1300	0371	34	95	2780	00	042	56	164	9 1	4872								
			0.6		1300	0371		950 95	2780 2780	0.0	043	43 /	)69.		4872 4888								
			O E	5TD 35	1400 1400	0371 0371		951	2780	00		٠ ,	7	1	4888								
									2782	0.0	04.2	()	73	c 1	4905								
				STD BS	1500 1500	0369		970	2782	U	042	02	,,,	-	4905								

ERENÇÉ ID.	SHIP	LATITU	DE	LONGITUDE	DRIFT	MARSDEN SOUARE	STATION TI	ME YE	AR	ORIGI CRUISE	NATOR'S		DEPTH OT	MAX. DEPTH		WAY SERVA	ve Tions	WEA- THER	CLOUD	Ī	,	NODC
E NO.	COOF	•	1/10	• 1/1	0 2	10" 1"	MO DAY H			NO.	NUMBE		BOTTOM	S'MPL'			PER SEA		TYPE A M	7	j	NUMBE
18008	EV	4429	N	04813	w			171 19	67		864		3475	15	16	4	2	X4	03			001
						COLOR		SPEED	BARO METE	-	MP, °C	VtS.	NO. 085.	SPE	CIAL							•••
						CODE	TRANS. DIR.	FORCE	(mbs)	BULB	BULB	COD	DEPTHS	OBSERV	/A TIONS							
						DT	SD 17	532	99	7 094	089	9 6	30			1						
	MESSENGR TIME C	CAST	CARO	DEPTH	( (m)	ī °c	5 ./	SIGMA-		SPECIFIC VOL	UME	ξ Δ D	soi	JNO	02 ml/	PC	04-8 1	TOTAL-P	NO2-N	NO3-N	5104-5	,
	HR 1/10	NO.	TYPE					3101112		ANOMALY-	1107	ε Δ D 2YN. Μ x 10 <sup>3</sup>	. VETO	CITY	02 1112	פע	- 01/1	μg - at/1	yg = ot/1	μg = 01/1	yg - ot/	p3
1											Ì						į					
	171		ST! OBS	00 00		0929 0929	3418 34175	2645 2645		00159	22 (	0000		867								
	1/1	•	ST	_		0929	3418	2645		00159	42 (	0016		867 869								
			085			0929	34175	2645	5					869								
	002	-	085	00 00 d		0928	34176	2645		00155				869								
			ST 0BS	00		0905 0905	3418 34178	2649 2649		00155	/1 (	0032		862 862								
			085	00		0850	34155	2656						842								
			ST			0950	3440	2659	)	00146	43 (	0047		883								
			085	00		0950	34400	2659						883								
			085 ST	00 00 d		0985 0750	34642 3420	2672 2674		00132	10 /	0075		899								
			085	00		0750	34200	2674		00132	10 (	0019		808 808								
			085	00	70	0358	33827	2692						647								
			ST			0460	3412	2705		00103	11 (	104		694								
			085 085	00		0460 0736	34121 34680	2705 2714						694 814								
			ST			0900	3504	2717		00093	)5 (	129		884								
			085	01		0900	35035	2717					14	884								
			STI			0820	3499	2725		00085	) 1 (	151		857								
			085 STI	01		0820 0735	34987 3495	2725 2735		00076	13 0	171		857 828								
			085	01		0735	34950	2735		00070	, ,	, - , 1		828								
			ST			0690	3499	2744		00067	78 (	207		819								
			085	02		0690	34989	2744						819								
			085 STI	02		0588 0595	34908 3496	2752 2 <b>7</b> 54		00058	52 0	239		784 789								
			OBS	02		0595	34955	2754		00000	-	, _ ,		789								
			ST			0536	3494	2760		00053	33 (	267		773								
			OBS STI	0.3		0536 0465	34937 3492	2760 2767		00047		317		773								
			085	04		0465	34920	2767		00047	00 (	121		761 761								
			ST	_		0434	3493	2771		00044	22 0	363		764								
			085	05		0434	34929	2771						764								
			STI	06		0421 0421	3493 34930	2773		00043	57 (	407		775								
			ST			0421	3493	2773 2775		00042	34 0	450		775 784								
			OBS	076	00	0401	34930	2775		000				784								
			ST			0394	3493	2776		00042	+7 C	492		797								
			085 STI	089		0394 0386	34930 3493	2776 2777		00042		534		797 811								
			085	09		0386	34930	2777		00042	• ) (	1234		811								
			ST	100	00	0379	3494	2778		00041	34 0	577		824								
			OBS	10		0379	34939	2778						824								
			STI OBS	0 110 110		0375 0375	3494 34939	2 <b>77</b> 9 2779		00042	24 Ç	619		840 840								
			ST			0374	34939	2779		000429	91 n	661		840 856								
			OBS	120	00	0374	34940	2779		,	- 0			856								
			ST			0375	3494	2779		00043	75 0	705		873								
			OBS	130		0375 0373	34942	2779		00043		740		873								
			ST! OBS	140		0373	3496 34955	2780 2780		00043	9 0	748		889 889								
			ST			0365	3496	2781		000426	2 0	791										
			OBS	150	0.0	0365	34963	2781			-			903								

CE D.	SHIP	LATITU		LON	IGITUOE	A DC	MAR! SOU	ARE	1	ION GMT	)	YE	AR C	RUIS		I A TIC	)N	1	EPTH 10 110M	MAX. DEPTH OF	OBS	WAVE		WEA- THER CODE	CODES		5	NODC TATION
10.		<u> </u>	1/10			1 1	10*	1			HR,1/10	-	_	NO.	+	U M 9	IER .	+		S'MPL"	1	HGT PES	SEA	+	TYPE A MI			
08	EV	4426	N 1	04	759 W		149	47		04	186 WIND	-		11	P 986			-	58	15		5 2		X 4	0 3	1		0017
								COLOR	TRANS.	OIR.	SPEE OR FORG	D .	BARO~ METER (mbs]		DRY BULB	W E	T CO	2 6	100	SPE	VA TIONS							
								DT	-	16			983	+	089		39 4	+	31									
	MESSENG#	CAST	CA						_		T		Ι.		IC VOLUM		₹ ∆ DYN.		SDU	NO		POA	_P	TOTAL-P	NO <sub>2</sub> -N	NO3-N	5105	
	FIME HR 1/10	NO.	TŶ	PE	DEPTH	(m)	Ť	*c	,	•/,.	210	SMA-			MALT-110		DYN. x 10	M.	VELO		02 ml/l	2g = 1		µg − 61/1	ug = 01.1	yg = a1/1	μg − α1/	pн
		,		10	000			882	34			651		00	15304	4	000	0	148									
	18	0	08 S	TD	000			882	34	162 17		651 657		00	14804	4	001	5	148									
			08	S	001			851		170		657					• • •	_	148									
	00	3	S 08	10	002			470	33	80 800		67 <b>8</b> 678		00	1277	1	002	9	146									
	00	_	08	-	002			320		635		680							146									
				TO	003			270	33	-		696		00	11034	4	004	1	146	-								
			08	10	003			270	33	783 92		696 708		00	0992	8	006	2	146									
			ОВ		005	0	0	260	33	920	2	708	ı						146	602								
			08 08		006			339		110 386		716 721								641 713								
				TO	007			530	34			723		00	0861	8	008	5		727								
			08	-	007			530		450		723			07/0	_		_		727								
			08	ITO IS	010			621 621	34 34	12 724		733 733		00	0769	/	010	5	14	772								
			08	s	011	. 0	0	590	34	755	2	739	)						14	762								
			08	S T 0	012			628 611	34 34	820		740 742		00	0687	7	012	,	14	779								
			08		013			597		8 2 S		744		00	0007	1	012	7		769								
				TO	015			610	34			746		00	0648	3	014	0		778								
			08	15 5TD	015			)610 )574	34	878 91		746 754		00	0585	1	017	ı		778 772								
			08	IS	020	0	C	574	34	912	2 2	754	,	•		-	•	-	14	772								
			08	35 570	024			)530 )540	34 34	930		761 761		00	0525	7	019			761 767								
			08		025		-	540		949		761		00	0225	'	019	9		767								
				OT	030			520		97		765		00	0493	2	022	4		767								
			08 08		030			)520 )4 <b>7</b> 5		969 940		765 768								767 757								
				TO	040			472		96		769		00	0455	9	047	2		764								
			08		040			472		959 97		769		^ ^	06.17	0	041	,		764 772								
			08	370 35	050			)450 )450		91 97:		773 773		00	0427	9	031	0		772								
			S	OT	060	0	C	)456	35	02	2	77 <i>6</i>	•	00	0412	3	035	8		791								
			08	5 T D	060			)456 )423		018	_	776 778		٥٥	0400	R	039	a		791 794								
			08		070			)423		995		778		00		J	029	,		794								
			5	10	080	0	(	410		00		779		00	0395	3	043	8		805								
			08	35 570	080 090			0410 0396		995 98	_	779 780		00	0399	3	047	8		805 816								
			08	35	090	0	0	396	34	980	2	780	)						14	816								
			08	STD	100			389		98 980		780		00	0400	2	051	8		829 829								
				55 510	110			383		98		781		00	0401	9	055	8		843								
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			0.5	310	120			)378 )378		98 971		78: 78:		00	0406	1	059	19		858 858								
				55 5T0	130		(	371		98	2	782	2	00	0406	0	063	9		872								
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			08	STO BS	140			)367 )367		98 97		782 782		00	0409	4	068	U		887 887								
			5	STO	150	00	(	363	34	98	2	783	3	00	0411	9	072	21	14	902								
			0.8	35	150	00	(	363	34	97	9 2	78:	3						14	902								

REFERENCE		ніР	LATITU	ns.	LONGITUE	DAIFT	MARS	DEN ARE	STATION	TIME	E	EAR		NATOR'S		DEPTH		HI o	W BSER	A VE VA TIONS	WEA	A -	CLOUG			NODO	2
CODE NO.	C	300		1/10		1/10 5	10"		MO DAY				NO.	NUMBER		BOTTON	S"MPL	1		ST PER SE	CDE	ne L	TYPE AMT			NUMB	ER
318008	8 8	EV	4422	N	04739	W	149	47	04 04	20	06 1	967	IIP 9	866		3749	15	17	7 5	2	×ε	5	0 3			001	1.8
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								COLOR	TRANS. DI		SPEED OR FORCE	METER (mbs)	ORY BULB	WET BULB	cool	OBS.	OBTER	VATION!	2								
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		rrence					$\Box$	-	3011	1	,,,,			_	_	+	L		+			Т			·	Т	-
		SSENGR TIME O	NO.	CARE	DEP	TH (m)	Ţ	*C	s •/.		SIGMA	1 = A	SPECIFIC VOI	UME K107	YN. M x 10 <sup>3</sup>	. VET	OCITY	0 2 ml	1/1	PO4-P   pg - at/l	101AL-		NO2-N ug - ot/l	NO3-N µg - ai/l	\$1.04- 10 - 04		н
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				ST		050	-	182	3383	_	270		00100	11 (	0065		567										
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				5 T 0 B S		075		330	3420	0	272		00084	<i>5</i> 0	1009		640										
				085		085		444	3437		272						693										
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				51		100		575	3469	2	273		00073	63 (	108		753										
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				OBS		125		595	3481	0	274		0000.	00 (	, - 2 0		767										
				ST		150		588	3487		274		00062	76 (	142		769										
				OBS		150		588	3486		274		00053				769										
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				ST		250		521	3495	•	276		00049	93 (	197		759										
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				OBS	5 0	500		453	3498	3	277					14	+773										
				ST		600		438	3500	,	277		00040	37 (	353		783										
				085 51		600 700		438 432	3500 3501	1	277		00040	03 (	393		+783 +798										
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				51	D 0	800		407	3501		278	1	00038	14 (	432		804										
				089		800		407	3500	9	278						804										
				S1 OB9		900 900		395 395	3500 3500	2	278	-	00038	19 (	470		815										
				S1		000		385	3500	2	278		00038	13 (	508		828										
				OBS		000		385	3499	9	278			'			828										
				51	D 1	100		378	3499		278		00038	84 (	547	7 14	841										
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				51		300		369	3499		278		00039	83 (	0625		871										
				OBS		300		369	3498		278						871										
				51		400		366	3499		278		00040	30 (	0666	14	887										
				OBS		400		366	3498	5	278		000/0	, ,	701		887										
				S1 0B5		500 500		361 361	3499 3498	5	278 278		00040	49 (	706		901										
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No.	ERENCE	SHIP	LATITUI		LON	GITUDE NO.	500	SDEN	STATIO			AR C	RUISE		TION	Η.	DEPTH	OF	OBS	WAVE ERVATIONS	T!	HER	CLOUD			NO STAT	ION
	NO.	CODE	•	1/10		1/10 ° Z			MO D	AY HR	1/10	_	NO.	NU	MBER	- 1	IDTTO:	M S'MPL	'S DIR.	HGT PER SE	A C	100	TYPL AMI			NUA	ABER
COCONT   No.   Cocont   No.   Cocont   No.   N	18008	EV	4418	N	04	7185W	149					967				;	3840	15	28	3 2		x 6	0 3			00	19
								_	_	-	SPEED		_	_		cood	OBS.	OBSCRI	ECIAL								
									(m)	DIR.	FORCE					2006	DEPTH	S OBSEK	VAIIONS								
STD   ORD   1000   34-28   26-41   ORD   14-95   14-								OT	so	28	530	003	061	(	061	5	31										
STD   ORD   1000   34-28   26-41   ORD   14-95   14-		MESSENGR	CAST	CAR	D	DERTH (m)	,	r		,	CICTO	s	PECIFIC VO	LUME	. S	A D			Co. ml/l	PO4-P	FOTA	L P	NO2-N	NO3-N	SI O4-	-51	-11
228		HR 1/10	T NO.	TYP	E		l _ '			••	JIGMA		ANOMALT-	-x107	x	103	VE	FOCITA	02 111171	μg = a1/1	νg -	01/1	μg - at/l	yg - at/l	µg − 0	15/1	pri
228																											
STO   0010   1004   34-29   2641   0016-292   0016   14898   14898   1570   0020   1062   3463   2658   0014739   0032   14925   149			-										00162	66	00	00											
OBS		22	в										00162	02	0.0	116											
STO   Q020   1062   3463   2658   0014739   0032   14925													00102	72	0.0	,10											
STO   0030   1187   3493   2657   0014781   0047   14974   1						0020	1	062					00147	39	00	32											
OBS         0030         1187         34925         2657         14974           OBS         0030         1248         35218         2668         15000           STD         0050         1240         3522         2670         013624         0075         1249         3522         2673         013495         14999           SBS         00075         1224         3522         2673         0013495         010         14998           OBS         0070         1264         3530         2675         013295         0142         15011           OBS         0100         1246         3530         2675         013295         0142         15011           OBS         0100         1246         3530         2675         013166         0175         15021           OBS         0125         1274         3540         2677         013166         0175         15025           OBS         0125         1274         3540         2686         012348         2071         15025           OBS         0150         1251         35460         2686         0012348         2270         15021           STO         0200         1135 <td></td> <td>00</td> <td>3</td> <td></td>		00	3																								
OBS   OJ38   1240   35218   2668   15000													00147	81	00	47											
STD 0050 1240 3522 2670 0013624 0075 14999 14999 STD 0050 1240 35222 2673 0013435 0109 14998 14999 STD 0075 1224 3522 2673 0013435 0109 14998 14999 14998 14999 14998 14999 14998 14999 14998 14999 14999 14998 14999 14																											
OBS													00136	24	00	75											
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1500   1266   35238   2674   15001   2685   0100   1266   3530   2675   013295   0142   15011   15011   15010   1266   3530   2675   013295   0142   15011   15011   15010   1260   1274   3549   2677   013166   0175   15025   150													00134	35	0	09											
STO   0100   1246   35300   2675   013299   0142   15011   15011   1501   1501   1501   1501   1501   1501   1501   1501   1502   1274   15300   2675   1501   1502   15																											
STO   0100   1246   35300   2675   15015   15025   1													00132	95	0.7	42											
STO   0125   1274   3540   2677   013166   0175   15025     OBS   0125   1274   35399   2677   15029     STO   0150   1251   3546   2686   012348   0207   15023     OBS   0170   1251   3546   2686   012348   0207   15023     OBS   0170   1235   35509   2693   15021     STO   0200   1135   3541   2705   010701   0265   14990     OBS   0200   1135   3541   2705   010701   0265   14990     OBS   0250   0981   3524   2719   0009406   0315   14941     OBS   0250   0981   3524   2719   0008411   0360   14904     OBS   0300   0863   35132   2730   0006758   0435   14856     OBS   0400   0697   35048   2748   0006758   0435   14856     OBS   0500   0521   3494   2762   0005376   046   14800     OBS   0500   0521   34940   2762   0005376   046   14800     OBS   0500   0500   3500   2769   0004828   0547   14809     OBS   0500   0500   3500   2769   0004828   0547   14809     OBS   0618   0476   34981   2777   0004588   0594   14827     STO   0700   0498   3504   2773   0004588   0594   14825     OBS   0900   0478   3505   2776   0004818   0594   14825     OBS   0900   0478   3505   2776   0004414   0439   14834     OBS   0900   0478   3505   2776   0004414   0439   14834     OBS   0900   0478   3503   2779   0004238   0725   14850     OBS   1000   0437   3503   2779   0004238   0725   14850     OBS   1000   0437   3503   2778   0004164   0891   14852     OBS   1000   0437   3503   2778   0004164   0891   14879     OBS   1000   0368   3499   2781   000416   0849   14879     OBS   1000   0368   3499   2781   0004164   0891   14866     OBS   1000   0368   3499   2781   0004164   0891   14866     OBS   1000   0368   3499   2781   0004164   0891   14866     OBS   1000   0368   3499   2781   0004164   0891   14879     OBS   1000   0368   3499   2781   0004164   0891   14866     OBS   1000   0368   3499   2781   0004164   0891   14866     OBS																											
SECOND   1251   3544   2679   15029   15029   15023				S	TO						267	7	00131	66	0	175	1	5025									
STO   0150   1251   35460   2686   0012348   0207   15023   15023   15021   15023   15023   15021   15023					_																						
0BS         0150         1251         35540         2686         15021           STO         0200         1135         35540         2705         0010701         0265         14990           0BS         0200         1135         35410         2705         0010701         0265         14990           STO         0250         0981         35240         2719         0009406         0315         14941           STO         0300         0863         35132         2730         0008411         0360         14904           0BS         0300         0863         35132         2730         0008411         0360         14904           0BS         0300         0863         35132         2730         0006758         0435         14856           0BS         0400         0697         35045         2748         0006758         0435         14856           0BS         0500         0521         34940         2762         0005376         0496         14800           0BS         0560         0495         34940         2762         00452         14809           0BS         0560         0500         3500         2769													00123	<i>.</i> . a	0	) n <b>7</b>											
STO   O200   1135   35509   2693   15021   STO   O200   1135   35410   2705   O10701   O265   14990   O10701   O265   14990   O10701   O265   O200   O265   O265   O200   O265													00123	40	0.4	. 0 1											
OBS   O200						0170	1	235	355	09																	
STO   0250   0981   35240   2719   0009406   0315   14941													00107	01	04	65											
085 0250 0981 35240 2719 1494 STO 0300 0863 3513 2730 0008411 0360 14904 085 0300 0863 35132 2730 14904 STO 0400 0697 3505 2748 0006758 0435 14856 085 0400 0697 35058 2748 0006758 0435 14856 STO 0500 0521 3494 2762 0005376 0496 14800 085 0500 0521 34940 2762 14800 085 0500 0521 34940 2762 14800 085 0500 0521 34940 2765 14800 085 0500 0521 34940 2765 14800 085 0500 0521 34940 2765 14800 085 0500 0521 34940 2765 14800 085 0500 0521 34940 2765 14800 085 0500 0500 3500 2769 0004828 0547 14809 085 0600 0500 34995 2769 0004828 0547 14809 085 0600 0500 34995 2769 0004828 0547 14809 085 0618 0476 34981 2771 14802 STO 0700 0498 3504 2773 0004588 0594 14825 085 0700 0498 35040 2773 0004588 0594 14825 085 0800 0478 35045 2776 0004414 0539 14834 085 0800 0478 35045 2776 0004414 0539 14834 STO 0900 0450 3503 2779 0004231 0882 14839 085 0900 0450 3503 2779 0004231 0882 14839 STD 1000 0437 3503 2779 0004231 0882 14839 STD 1000 0437 3503 2779 0004231 0882 14839 STD 1100 0402 3500 2781 14850 085 1100 0402 35000 2781 14850 085 1200 0392 3499 2781 0004139 0808 14864 085 1200 0392 3499 2781 0004164 0891 14866 085 1200 0388 3499 2781 0004164 0891 14886 085 1400 0365 3497 2782 0004164 0891 14886 085 1400 0365 3497 2782 0004164 0891 14886 085 1400 0365 3497 2782 0004164 0891 14886													00000	٥.	0	116											
STO         0300         0863         3513         2730         0008411         0360         14904           STD         0400         0697         3505         2748         0006758         0435         14856           085         0400         0697         35048         2748         14856           STD         0500         0521         34940         2762         0005376         0496         14800           085         0500         0521         34940         2762         0005376         0496         14800           085         0500         0551         34940         2762         14827         14827           STD         0600         0500         3500         2769         004828         0547         14809           085         0571         0553         35108         2772         14827         14809           085         0600         0500         3500         2769         004828         0547         14809           085         0618         0476         34981         2771         14802         14825           STD         080         0470         0498         3504         2773         0004588         059													00054	00	0.	119											
STO   0400   0697   3505   2748   0006758   0435   14856     OBS   0400   0697   35048   2748   14856     STO   0500   0521   3494   2762   0005376   0496   14800     OBS   0500   0521   34940   2762   14800     OBS   0500   0521   34940   2765   14800     OBS   0550   0495   34940   2765   14800     OBS   0571   0553   35108   2772   14827     STO   0600   0500   3500   2769   0004828   0547   14809     OBS   0618   0476   34981   2771   14809     OBS   0618   0476   34981   2771   14802     STO   0700   0498   3504   2773   0004588   0594   14825     STD   0800   0478   3505   2776   0004414   0639   14834     OBS   0800   0478   35045   2776   0004414   0639   14834     STO   0900   0450   3504   2778   0004231   0682   14839     OBS   0900   0450   35037   2778   0004231   0682   14839     OBS   0900   0450   35037   2778   0004231   0682   14839     OBS   0900   0450   35037   2778   0004231   0682   14839     OBS   1000   0437   3503   2779   0004238   0725   14850     OBS   1100   0402   35000   2781   0004139   0808   14864     OBS   1200   0392   3499   2781   0004186   0849   14879     STO   1200   0398   3499   2781   0004164   0891   14866     OBS   1400   0365   3497   2782   0004235   0933   14904													00084	11	0	860											
085 0400 0697 35048 2748							-					-															
STD         0500         0521         3494         2762         0005376         0496         14800           0BS         0500         0521         34940         2762         14800           0BS         0560         0495         34940         2765         14800           0BS         0571         0553         35108         2772         14827           ST0         0600         0500         3500         2769         0004828         0547         14809           0BS         0600         0500         34995         2769         14809         14802           ST0         0700         0498         3504         2773         0004588         0594         14825           0BS         0700         0498         3504         2773         0004588         0594         14825           ST0         0800         0478         35045         2776         0004414         0639         14834           OBS         0800         0478         35045         2776         0004231         0682         14839           STD         1000         0437         3503         2778         14850           OBS         1000         0437 <td></td> <td>00067</td> <td>58</td> <td>04</td> <td>35</td> <td></td>													00067	58	04	35											
OBS         0500         0521         34940         2762         14800           OBS         0560         0495         34940         2765         14800           OBS         0571         0553         35108         2772         14827           STO         0600         0500         3500         2769         0004828         0547         14809           OBS         0608         0600         0500         34995         2769         14809           OBS         0618         0476         34981         2771         14802           STO         0700         0498         3504         2773         0004588         0594         14825           OBS         0700         0498         35040         2773         0004588         0594         14825           STD         0800         0478         35040         2773         0004584         14834           OBS         0800         0478         35045         2776         0004231         082         14834           STD         1000         0450         35037         2778         14850         14850           OBS         1000         0437         35032         2779 <td></td> <td>00053</td> <td>76</td> <td>0.4</td> <td>96</td> <td></td>													00053	76	0.4	96											
OBS         0571         0553         35108         2772         14827           STO         0600         0500         3500         2769         0004828         0547         14809           OBS         0600         0500         34995         2769         14802           OBS         0618         0476         34981         2771         14802           STO         0700         0498         3504         2773         0004588         0594         14825           OBS         0700         0498         35040         2773         14825         14825           STD         0800         0478         35045         2776         0004414         0439         14834           OBS         0800         0478         35045         2776         14839         14839           STO         0900         0450         35047         2778         0004231         082         14839           STD         1000         0437         3503         2779         0004238         0725         14850           OBS         1000         0437         35028         2779         14852         14850           OBS         1100         0402 <td></td> <td>0000</td> <td>10</td> <td></td> <td>, , 0</td> <td></td>													0000	10		, , 0											
STO         0600         0500         3500         2769         0004828         0547         14809           08S         0600         0500         34995         2769         14809           0BS         0618         0476         34981         2771         14802           STD         0700         0498         3504         2773         0004588         0594         14825           08S         0700         0498         35040         2773         0004414         0039         14834           0BS         0800         0478         35045         2776         0004414         0039         14834           0BS         0800         0478         35045         2776         0004231         082         14839           STO         0900         0450         35037         2778         0004231         082         14839           STD         1000         0437         3503         2779         0004238         0725         14850           08S         1000         0437         35028         2779         14850         14852           STD         1100         0402         35000         2781         0004105         0767 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>																											
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ID.	SHIP	LATITU		LONGITUD	10 7	MAPSDEN SQUARE	STATION THE		YEAR	CRUISE NO.		TOR'S ATION IMBER		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S		WAVE ERVATIONS	WEA- THER CODE	CLOUD CODES		5	NODC FATION UMBER
+	C.,		1/10		/10	10 1	04 06 C		067	1	986		-	3840	15		3 2	x1	0 3	<u> </u>		002
18008	EV	4419	* N	04648	W [	149 46 WA		164 ]	967		R TEM		VIS	NO.	SPEC		13121	1 1	. 0.3	'	'	002
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	11/5/16	CAST	CAPE	DEP	TH (m)	T C	s */	SIGM	A-1	SPECIFIC	VOLUA LY-X10	, 5,	△ 0 N. M 10 <sup>3</sup>	. AEFC	DOLITY	O2 ml/l	PO4-P yg • 61/1	TOTAL-P I/to-gu	NO2-N ug - o1/l	NO3-N	\$1 O4-\$1 pg - a1/1	pΗ
	HR 1/1	0	-	-				-	_			-		+			+					
		1	ST	n 0	000	1169	3539	26	97	0010	959	, 0	000	14	969		1	i			1	
	06	4	085		000	1169	35390	269							969							
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			OBS ST		010 020	1169 1169	35389 3539	269		001	101	9 0	022		971							
	00	3 <b>7</b>	085		020	1169	35389	26		001		, ,			972							
		- •	OBS	0	025	1169	35389	26							973							
			ST	-	030	1168	3539	26		001	102	0	033		973							
			0BS S <b>T</b>	-	030 050	1168 1169	35389 3539	26		001	109	3 0	055		977							
			OBS	_	050	1169	35389	26							977							
			ST	_	075	1169	3539	26		001	115	7 0	083		981							
			OBS		075 100	1169 1169	35389 3539	26 <sup>1</sup>		001	1224		111		981							
			ST 089	-	100	1169	35389	26		001	1221	, ,			985							
			51		125	1170	3539	26		001	130	١ ٥	139	14	990							
			089		125	1170	35389	26							990							
			\$1		150 150	1169 1169	3539 35389	26 26		001	134	0	167		993							
			085 51		200	1181	3542	26		001	146	3 0	224		006							
			089		200	1181	35420	26							006							
			ST		250	1200	3547	26		001	161	2 0	282		022							
			089		250 280	1200 1199	35465 35465	26 26							022							
			089 S1		300	1183	3544	26		001	159	1 0	340		024							
			089		300	1183	35442	26	98						024							
			085	-	340	1087	35383	27	_						996							
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			089		400	0903	35205	27		000	0.0	,			936							
			51		500	0708	3506	27		000	699	4 0	520		877							
			089	-	500	0708	35059	27		000	E O 2		585		877 851							
			S1 083		600	0602 0602	3503 35025	27 27		000	592	<i>5</i> (	128:		851							
			S1		700	0532	3503	27		000	511	7 0	64(	) 14	839							
			089	5 0	700	0532	35027	27	68						839							
			S.		800	0477 04 <b>7</b> 7	3502 35022	27 27		000	457	т С	688		+833 +833							
			0B3	-	900	0477	3501	27		000	425	2 0	732		833							
			08	5 0	900	0438	35014	27	78	- •				14	833							
			085	-	940	0428	34998	27							836							
			083		000	0458 0458	35050 3505	27 27		000	432	7 (	775		+853 +859							
			08:		000	0458	35052			500					+859							
			S.	TD 1	100	0440	3505	27		000	421	6 0	818		+868							
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IENCE	SHIP	L	A TITU DE	- 1	LONGI		50	RSOEN UARE		ION TIV		rEAR	CRUI	IS E	NATOR ITATZ MUN	ON	1	EPTH TO	MAX. DEPTH OF S'MPL'	OBS		VE ATIONS	wi th co	ER	CLOUD CODES			STA	DDC TION MBER	
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!	HR 1/1			1176					-		-		-		-	_ x 10	-		-		-		-	-		-	+-			
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	0.0	05		085 085		0020 0025		0822 0830		385 400	261 261								837											
				51		0030		0835		41	26		0	0127	95	003	8		840											
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ERENCE							44.600	DEN T	CT + T!~	AL T11.				RIGINA	108'5			MAX.		Wass		T	CLO			-	
1.0	SHIP SODE	LATITU			GITUDE	DRUFT	SOU A	RE		MT)		YEAR	CRUISE NO.	\$1	ATION		DEPTH TO BOTTOM	DEPTH		ERVATI	ONS	THER CODE	CLOU	ES		ST	NODC LATION LIMBER
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1,0000	- V	7702	14	U <b>4</b> .	, , , , , , , , , , , , , , , , , , ,		[	WAT		WIE	1D	BARC		IR TEM	P. *C	Γ.	NO.		CIAL	12 13	1	X1	1 0	9			002
							1	CODE	TRANS.	DIR. I	OR FORCE	M ETE (mbs		RY JLB	W E T BULB	cope	OBS. DEPTHS	OBSERV	ATIONS								
_								DΤ	50		506	28	4 0	67	067	7	36										
M	ESSENGR TIME	CAST	CAR	D	DEPTH (	m)	т	"C	s •.	۷. ا	SIGM	A-T	SPECIFIC	VOLUA 011-YJA	E S	△ D N. M 10 <sup>3</sup>	. SOL	JND	02 ml/l	PO a		TOTAL-P				\$1.04-\$1	рН
н_	R 1/10	[		-		-									X	103	1	30111		h8	01/1	μg = a1/1	/10 + Qu	hß	- 01/1	μg = al/I	_
		1 1	5	тр	000	0	0.	751	340	7	266	ا 4	001	4126	5 0	000	14	798		ļ	ı		l		i	İ	
	13	1	08	S	000	0	0	751	340	69	266	64					14	798									
			0B:	T D 5	001			746 746	340 340		266		001	4074	• 0	14		798 798									
		_		TD	002			746	340		266	64	001	4090	0	28	14	800									
	00	5	0B.	S TD	002			746 745	340 340		266		001	409	2 0	042		800 801									
			08	S	003	0	0	745	340	69	266	54					14	801									
			0B:	T D S	005			746 746	340 340		266		001	407	1 0	070		805 805									
			08	S	006	3	0	747	341	15	266	58					14	808									
			08: S	S TD	007			773 766	343 343		268		001	2038	3 0	103		822 821									
			0 B	5	007	5	0	766	343	94	268	37					14	821									
			08: 5:	5 T D	008			749 325	343 346	-	268		001	1086	0	132		814 851									
			08	5	010	0	0	325	346	42	269	8			•		14	851									
			08: 08:		010			328 766	346 346		270							853 829									
			S	ŢD	012	5	0	731	346	8	271	l 4	000	9549	9 0	158	14	819									
			0B:		012			731 302	346 349		27							819 850									
			08		014	0	0	781	349	05	272	25					14	844									
			0 B	TD.	015			733 733	348 348		272		000	854	1 0	180		826 826									
			ОВ.		017	4	0	561	347	96	27:						14	801									
			0B	T D	020			574 574	348 348		27:		000	763:	3 0	221		811 811									
			0В:		022			573	349		274							816									
			5 0B:	TD.	025			500 500	348 348		274		000	638	7 0	256		790 790									
			0В:		026	5	0 !	573	348	70	275	5 1						782									
			085		030			509 509	349 349		275		000	6208	3 0.	287		803 803									
				TD.	040			572	350		276	4	000	5130	0	344		806									
			085 085		0400			572 575	350 350		276							806 816									
			S.	T D	050			40	350		277		000	4575	0	393		810									
			08:		050			494	350 350		277							810 799									
			S	T D	060	0	0	493	350	4	277	74	000	439	3 0	+37	14	807									
			08:	5 T 0	060			493 448	350 350		277		000	406		480		807 805									
			08:		070	0	0.	448	350	28	27		500	, U U .	. 0			805									
			5°	D	080			421	350 350		277 277		000	404	7 0	20		810									
				S TD	090			42 <b>1</b> 420	350		278		000	4024	• 0	61		810 826									
			08		090			420	350		278	30					14	826									
			08	T D 5	100	0		415 415	350 350		278		000	4053	. 0	501		841 841									
			5	TD	110		0	401	350	2	278	32	000	3975	0	641	14	851									
			0B:		110			+01 387	350 350		278		000	3988	3 04	581		851 862									
			08:	5	120	0	0:	887	350	03	278	3 2					14	862									
			51 08:		130			382 382	350 350		278		000	403	0	721		877 877									
			S	TD	140	0	0 :	373	350	0	278	33	000	4024	• 0	761	14	890									
			08:	5 T D	140			373 369	349 350		278		000	405	7 0	802		890 905									
			08:		150			369	349		278		500			- 52		905									

TRY ID	COD		1/10 LC	NGITUDE NOTE	MAR SOL	SDEN I ARE		TION T		YEAR	ORIGI CRUISE NO.	STATE NUM	DИ	DEPTH TO BOTTOM	DEPTH	08	SERVA		WEA- THER CODE	CC	OUD SOES		S	NODC TATION IUMBER
3180		465		4758 W	149			_		967	11P 9	871		0166	01	32	4	2	X1	0	3			0023
3 1,00	09	1 .03	,.				TER	_	VIND	BARO	A 10 T	EMP.		NO.	7		1	- 1			-	•		••
						COLOR		DIR.	SPEED OR FORCE	METER	R DRY	W:		0.05	ORSERY	CIAL /ATIONS								
						DT	50	32	520	15	9 000	-0	11 7	12										
	MESSE TIM	E OF NO.	CARD	DEPTH (m)		*c	s	٠4.	SIGM	A-T	SPECIFIC VOI		₹ △ C DYN. A x 10 <sup>3</sup>	1	LOCITY	O 2 m1/		4-P • 07/I	101A1-P			NO3-N ug - ot/1	\$1 O4-5 yg = 01/	
																	Ì	į			,		1	
			STD			8800		93	269		00154	49	0000		+423									
		108	OBS	0000 0010		0088		?932 ?93	265 265		00154	<i>1</i> . 2	0019		4423 4425									
			STD OBS	0010		0088		.93 29 <b>3</b> 2	269		00134	40	001		4425									
			STD			0086		93	265		00154	44	003		4428									
	(	002	085	0020		0086		932	269				<b>V</b> -3		+428									
			STD	0030	- (	0085	3.2	94	265	0	00154	19	0046	5 14	4430									
			OBS	0030	- (	0085	3.2	935	265	50				14	4430									
			STD	0050	- (	0084	3.2	96	269	52	00152	35	007	7 14	4434									
			085	0050		0084	_	958	265						4434									
			OBS	0055		0084		2990	26	54					4435									
			085	0060		0091		3043	26						4433									
			085	0065		0068		082							4446									
			STD			0069		308	266		00143	27	011		4447									
			OBS	0075		0069		3082	26						4447									
			085	0090		0085		3103	266		00140	.0.6	014	_	4442 4448									
			STD	0100	-	0076	3 :	312	260	54	00140	0.0	014	, T.	7440									
			OBS	0100		0076	2:	3119	26	c 2.				١.	4448									

CODE NO. CODE	1/10	1/10 H		IGMTI MO DAY HE	YEAR	CRUISE STA	TION		3 MFL 3	O85	HGT PER S	CODE	TYPL AM		N S.	NODC TATION UMBER
318008 EV 4657	4N 04	7415W						0183	0.2	32	3 2	X1	0 3	i .		0024
				ER W	BAR	U-	VIS	NO.	SPEC	1A L						
			COLOR	TRANS. DIR.	OR			DEPTHS	OBSERVA	TIONS						
			рт	50 31		3 -022 -	028 7	18		$\neg$						
necessary.						i	5 A F	1 60			Τ					
TIME O' NO.	TYPE	DEPTH (m)	1 *c	s ·4.	SIGMA=1	ANOMALY-X107	DYN. A	A		O <sub>2</sub> ml/l	PO4=P ug - at/l	10TAL-P	NO2-N	NO3-N	21 O4−21	рН
												ĺ				
	STD	0000	-0118	3294	2651	0015305	0000									
123	OBS															
						0015298	001									
						0015303	003									
0.03						0015292	003									
002						0015285	0044									
	STD   OOO															
	SHIP   LATITUDE   LONGITUDE   SQUARE															
	085	0050	-0145	33078	2663			14	407							
	Continue															
	085	0061	-0113	33170	2670			14	425							
	No.   Strong   Cast   Cast   Cast   Construct   Strong   Count   Cou															
	085															
					_	0012194	014.	-								
						0011/70	017									
						0011479	017.	-								
	OBS	0140	0068	33620	2698 2698	0010850	019		528 531							
	STD	0150	0072 0072	3363 33626	2698	0010000	019		531							
	08s 08s	0150 0170	0072	33630	2698 2698				537							
	005	0170	0076	22020	2098			14	,,,,,							

REFERENCE SHIP CODE LATITUE		DE HOS	ARSDEN SQUARE	STATION TI IGMTI	YEAR	ORIGINATO	ION	DEPTH DEPTH TO OF SOTTOM SIMPL	085	WAVE ERVATIONS	WEA- THER CODE	CODES	1	5.7	NODC TATION UMBER
318008 EV 4657	4N 04728	8 W 1		TRANS. DIR	SPEED METE	O- AIR TEMP.	ET CODE		32 CIAL VATIONS	3 2	X1	0 3			0025
			CODE	(m)	FORCE (mbs		JLB 7								
MESSENGR CAST TIME OF NO. HR 1/30	CARD DE	EPTH (m)	1 °C	SD 31	S1GMA-1	3 -022 -0  SPECIFIC VOLUME ANOMALY-X107	28 7 ≅ △ □ □YN. M. × 10 <sup>3</sup>	SOUND VELOCITY	O2 ml/l	PO4-P µg - 01/I	1ΟΤΑ L — P μg - α1/I	NO2-N µg - at/1	NO3-N ug - 01/1	\$1 O4-\$1	pH
134	OBS (	0000	-0111 -0111	3305 33053	2660 2660	0014450	0000	14414							
	OBS (	0010	-0113 -0113 -0113	3306 33055 3306	2660 2660 2661	0014422	0014	14415 14415 14417							
001	STD (	0030 0030	-0113 -0134 -0134	33059 3314 33140	2661 2668 2668	0013698	0043	14417 14410 14410							
	STO (	0050 0050	-0134 -0120 -0120 -0119	33185 3325 33254 33270	2671 2677 2677 2678	0012851	0069	14413 14421 14421 14423							
	OBS (	0068 0075	-0143 -0131 -0131	33289 3330 33296	2680 2680 2680	0012481	0101	14414 14421 14421							
	OBS (	0089 0100	-0123 -0058 -0046	33359 33417 3344	2685 2688 2689	0011672	0131	14427 14459 14467							
	OBS O	0107 0113	-0046 0043 -0068	33440 33572 33530	2689 2695 2697			14467 14510 14460							
	085 085	0125 0125 0136	0107 0107 0150	3386 33860 33897	2715 2715 2715	0009290	0157	14546 14546 14568							
	STO 0	0140 0150 0150	0140 0159 0159	33890 3393 33928	2715 2717 2717	0009133	0181	14575							
	OBS I	0163 0168 0183	0174 0139 0219	34007 33975 34170	2722 2722 2731			14584 14569 14610							

C.E.	SHIP	LATITU	DE LO	NGITUDE LING	MARSDEN SQUARE	10	ON TIM		YEAR		ATOTAL STATE	ON	DEPTH TO BOTTOM	MAX, DEPTH OF S'MPL"	1 00	WAVE SERVATIO	WEA- THER CODE	CLOU	IES		S1	NODC FATION UMBER
-+	C.1.				149 6				967	11P 98	74		0603	06	19		x1	0	0			0026
008	EV	4657	4N   U	47115W		ATER		ND	T	A ID 76			NO.	1		]	, ,,	, 0	0 ,			
					COL		DIR.	SPEED	BARC	)• — —	w		OBS. DEPTHS	OBSERV	CIAL ATIONS							
					co		UIK.	FORCE	lmbs	) BULB	BU	IL8	OFFIHS									
					D	T SD	32	\$08	20	0 -006	-0	17 7	25									
Г				T -	1			_	•			<b>≥</b> ∧ □	1	UND	_	. PO	 OTAL-P	NO2-	N N	103-N	S1 O 4 - S1	
ľ	AESSENGR TIME C	CAST	CARD	DEPTH (m)	1 °C	S	٠/	SIGM	A-T	ANOMALY-X	107	≨ △ D DYN. M X 10 <sup>3</sup>		OCITY	02 ml/	1 Vg - 01	ug = 01/3	ug - ol		g = a1/1	μg = α1/1	pH
Į.	4R 1/10			1	-	_		-				X 10-	+	+		-	 		+-		_	_
									1		- 1		1	1				ļ	ĺ		l	l
,			STD	0000	014			268		001184	+5	0000		537								
	14	7	OBS	0000	014		550	268						537								
			STD	0010	013			26		00118	2	0012		535								
			OBS	0010	013		550	268				000		535								
			STD	0020	012			261	-	001175	>2	0024		533								
	003	3	OBS	0020	012		550	26	-					533								
			OBS	0025	012		550	268		00113		0035		559								
			STD	0030	017			26		00112	+4	Ų035		559								
			OBS	0030	017		562 770	269						580								
			OBS	0045	02 <b>1</b> 02 <b>6</b>			27		00097	50	0056		605								
			STD	0050	026		950	27		00077	, ,	0076		605								
			OBS OBS	0053	020		940	27						585								
			085	0059	026		120	27.						610								
			STD	0075	027			27		00070	30	0077		618								
			085	0075	027		320	27					14	618								
			OBS	0083	030		421	27					14	634								
			OBS	0087	028		421	27					14	625								
			STD	0100	028		43	27	47	00063	25	0094	. 14	628								
			085	0100	028	4 34	428	27	47				14	+628								
			STD	0125	030	8 34	55	27	54	00056	21	0109		644								
			oBs	0125	030	8 34	552	27						+644								
			STD	0150	035	0 34	63	27	57	00054	31	012.		+667								
			OBS	0150	035		632	27						+667								
			OBS	0160	035		655	27						673								
			STO	0200	036			27		00053	32	0149		4681								
			OBS	0200	036		665	27						4681								
			OBS	0218	036		666	27				017		4684								
			STO		044			27		00049	49	017		4718 4718								
			OBS	0250	042		812	27						4718 4719								
			OBS	0275	041		812		64	00069	70	020		4733								
			STO		044		85		65	00048	ı U	0201		4733								
			OBS	0300	044	-	850		65 66					4753								
			OBS	0350	046		911 92		67	00047	54	024		4761								
			STO		046		921		67	00047	74	0-4		4761								
			0BS ST0	0400	045	-	95		71	00044	69	029		4772								
						· • • • •	11	۱ ک	1.4	00077	<b>.</b>	0-7										
			OBS	0500	045		949	27	71				1 .	4772								

									_					_	_													
31   30   30   30   30   30   30   30	NODC			CLOUG				4 n	OEPTH						YEAR		N TIA MTI	STATION (GN	ARE	MARS	NGITUDE ES	E LO	TUDE	LATIT				_
STD   000   0.35   0.399   0.71   0.0964   0.000   0.00064   0.000   0.00064   0.000	STATION			į.	CODE				S*MPL		ı			NO.							1/10			•	COOE	NO.	3 d C	co
STD   OOO   O250   3399   2710   O009684   O110   14612   O025   O250   O005384   O00586   O00730   O00488   O00730   O00488   O00730   O007300   O00730   O007300   O00730   O00730   O007300   O007300   O007300   O007300   O007300   O0	002	-			+	$\rightarrow$		_	1	1097					967	62 1	7 1	04 07	66	149	657 W	N 04	741	465	ΕV	008	318	1
Note							$\neg$	ECIAL	SPE	NO.	vis.			•			WI											
OT   SU   05   S08   193   -006   -017   7   22							NS	VATION	OBSERV		CODE					OR	DIR.	TRANS. D	COLOR									
MISSING   CAST   CAST   CAST   TYPE   OFFIN (m)   T 'C   S 'A'.   SIGMA=T   SIECHIC VOLUNT   AND							$\dashv$			22	7	017	06		-		15	SULO	DT									
STD   O000   O350   3399   2706   O0010145   O00   14634   O005014   O350   O					-	- 1	Щ,				-		00	-00	1 /	-	-	30 0		$\top$	T		Т	.1		í		
STD		SI O4-S					n1/1	O <sub>2</sub> ml			ᄾ	, 0	VOLUA SIX-XIX	SPECIFIC Y	T-A	SIGM	٠.	s ·/.	°C	Ţ	OEPTH (m)			O' NO.	TIME			
162	61/1	/ום - פע	yg - at/1	ng - 61/1	PB - 61/1	pg - 61/1	_				103							-		-				-	HR 1/10	-		
162		i					- [								. 1			2200	250	1	0000		-			- 1		
STD 0010 0296 33999 2710 0009684 0010 14612 14612 STD 0020 0239 33999 2716 0009193 0019 14589 085 0020 0239 33993 2716 14589 14589 STD 0030 0255 34094 2722 0008562 0028 14599 085 0030 0255 34094 2722 0008562 0028 14599 085 0043 0130 34060 2729 14586 STD 0050 0142 3415 2736 0007307 0044 14554 STD 0075 0268 34401 2746 STD 0075 0268 34401 2746 STD 0100 0279 3448 2751 0005867 0077 14626 STD 0100 0279 3448 2751 0005867 0077 14626 STD 0125 0309 34564 2755 STD 0150 0326 34610 2757 STD 0200 0333 34650 2757 STD 0260 0343 34650 2757 STD 0260 0333 34650 2750 005058 0156 14668 085 0250 0333 34650 2750 0005173 0131 14668 085 0250 0333 34650 2750 0005058 0156 14691 STD 0200 0333 34650 2750 0005058 0156 14668 085 0250 0333 34650 2760 0005173 0131 14668 085 0250 0363 34711 2762 0005058 0156 14691 STD 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 3482 2764 0004885 0181 14725 085 0300 0423 34823 2764 0004885 0181 14725 085 0300 0423 34823 2764 0004885 0181 14725 085 0300 0423 34823 2764 0004885 0181 14725 085 0300 0423 34823 2764 0004885 0181 14725 085 0300 0423 34823 2764 0004885 0181 14725 085 0300 0423 34823 2764 0004885 0181 14725 085 0300 0423 34823 2764 0004885 0181 14725 085 0300 0423 34823 2764 0004885 0181 14760											000	0	014	0010									1	2	1.6			
08S 0010 0296 33989 2710 14612 STD 0020 0239 33999 2716 0009193 0019 14589 08S 0020 0239 33999 2716 14589 08S 0025 0235 34029 2719 14589 STD 0030 0255 3409 2722 0008562 0028 14599 08S 0030 0255 34094 2722 14599 08S 0043 0130 34060 2729 14584 STD 0050 0142 3415 2736 0007307 0044 14554 08S 0050 0142 3415 2736 0007307 0044 14554 STD 0075 0268 3440 2746 0006376 0061 14616 08S 0075 0268 34401 2746 14616 STD 0100 0279 34483 2751 14626 STD 0100 0279 34483 2751 14626 STD 0125 0309 3456 2755 0005539 0091 14645 OBS 0125 0309 3456 2755 0005539 0091 14645 STD 0150 0326 3461 2757 0005384 0104 14657 OBS 0150 0326 3461 2757 0005384 0104 14657 STD 0200 0333 3465 2755 0005539 0131 14668 STD 0200 0333 3465 2755 0005539 0131 14668 STD 0200 0333 3465 2755 0005539 0131 14668 STD 0200 0333 3465 2760 0005173 0131 14668 STD 0250 0363 3471 2762 0005058 0156 14691 STD 0300 0423 3482 2764 0004885 0181 14725 STD 0300 0423 3482 2764 0004885 0181 14725 STD 0300 0423 3482 2764 0004885 0181 14725 STD 0400 0465 34901 2766 0004880 0230 14760 OBS 0400 0465 34901 2766 0004880 0230 14760											110		069	4009	-								,	2	10			
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REFERENCE	SHIP	LATITE	JDE	LONG	SITUDE	NOCTR NOCTR	ARSDEN DU ARE	STATIO	N TIME	YEAR	CRUISE	5	ATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF		WAVE SERVATIONS	- 00	ER	CODES		1 5	NODC TATION NUMBER
ODE NO.	CODE		1/10	•	1/10	Z 10	. 1.	MO DA	Y HR.1/	10	NO.		NUMBER		60110M	S'MPL'S	Dis	HGT PER S	EA	- 1	YPE AMT		-	
318008	B EV	465	75N	046	43 W	14	9 66	04 0	1 179	5 196	7 111	98	76		1006	10	19	3 2	X	1	0 3		- 1	0028
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							COLOR	TRANS.		EED ME1	ER	DRY	WEI	CODE	OBS. DEPTHS	OBCCOV	ATIONS							
							CODE	[m]	FC	RCE (mb	31)	ULB	BULB			-								
							DT	SD	34 5	08   1	93 -	006	-01	7 7	24									_
		Ca	Τ								SPECIES	c volu	IME :	Δο	so	UNO		PO4-P	TOTAL	_P N	107-N	NO3-N	S1 O4 - S	рн
	IIME		CAR		DEPTH (	ni	1 °C	5 */	.	SIGMA-T	ANON	ALY_X	102	X 10 <sup>3</sup>		OCITY	O 2 m1/1	μg = ot/1	µg ← a′		g = 0t/l	µg - al/l	µg - al∕	1 70
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			ов		001		0417	342		2721	0.04	0871	11 (	0018		667								
	_	0.3	-	TD	002		0411	342		2721	0.0		•			667								
	U	02	OB	5 TD	002		0407	342		2721	0.0	3868	30 (	0026		667								
			0B		003		0407	342		2721	30		-			667								
			0В	-	004		0410	343	-	2727					14	670								
				TD	005		0376	344		2742	0.0	0674	40	0042	2 14	660								
			ов		005		0376	344	80	2742					14	660								
			ОВ		007		0308	345	37	2753					14	+635								
				TD	007	5	0320	345	6	2753	0.0	0565	55	005	7 14	641								
			ОВ	5	007	5	0320	345	57	2753						641								
			ОВ	5	008	0	0332			2754						+647								
			5	TD	010	0	0320			2756	00	0546	63	007		+646								
			OB	5	010	0	0320			2756						4646								
			ОВ	5	011		0312			2758						+644								
			5	TD	012		0320			2758	0.0	052	34	008		4650								
			οв	15	012		0320			2758		053				4650								
				TD	015		0324			2760	00	051	32	009		4656 4656								
			ОВ		015		0324			2760	0.0	049.	2 6	012		4681								
				TD	020		0360			2762	00	049.	25	012		4681								
			08		020		0360			2762						4679								
			OB		021		0352	-		2765	0.0	047	5.0	014		4704								
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			O E		040		0456			2767	-	- '				4757								
				5 T D	050		0430			2772	0.0	043	99	046	3 1	4763								
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				STD	060		0410			2774	0.0	042	71	000		4771								
			OE		060		0410	349	26	2774						4771								
				STD	070	0	0397	349	3	2775	0.0	042	03	034		4782								
			O E		070	0	0397			2775						4782								
				STD	080	0	0386			2777	0.0	041	69	039		4794								
			0.6	35	080	0.0	0386		28	2777						4794								
			5	5TD	090		0381			2777	0.0	041	93	043		4809								
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CODE NO.	SHIP	LATIT	JDE 1/10	LONGITUDE	MAR SQL	SDEN JARE	STATION T IGMTI		YEAR	ORI CRUISE NO.	GINAT STA NU!	TION	OEPIH TO BOTTON	DEPTH OF S'MPL'		SERV	A VE /A TION		WEA- THER CODE	CLO	23		2	NOOC TATION NUMBER
318008	B EV	465	75N	04628 W	149	66	04 07	187 1	967	LIP	9877	,	0366		19	_	2		X 1	0				2020
						WA		IND	BARO	A 10	TEMP.	*C	NO.	1	-	ر ار	121		^ 1	1 0	<i>3</i>		1	0029
						COLOR	TRANS. OIR.	SPEED OR	METER (mbs)			VET COD	0.00	0.0007.03	CFAL 'ATIONS									
						OT	SD 05	508	193	_		17 7	21			1								
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			ST			519	3407	269		0011	249	0011		707										
	00	1	OBS			519	34072	269		0011	27,	0011		707										
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			OBS	0020	0	495	34142	270				****		700										
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			OBS	0030	C	475	34255	271	4		•			695										
			085	0035	C	467	34275	271	6				14	693										
			ST		0	465	3429	271	.7	0009	093	0051	14	694										
			OBS			465	34287	271					14	694										
			OBS			1445	34305	272						689										
			ST		-	400	3433	272		8000	125	0072		672										
			085			400	34330	272						672										
			ST			337	3450	274		0006	260	0090		652										
			08s			337	34500	274						652										
			ST			360	34555 3461	275 275		0005		0105		653										
			085			360	34613	275		0005	549	0105		667										
			085			1355	34612	275						667 667										
			ST			387	3469	275		0005	307	0119		684										
			OBS			387	34685	275		0000	J 7 1	0119		684										
			OBS			421	34778	276						700										
			OBS	0167	0	387	34731	276						687										
			OBS	0180	0	388	34720	276						689										
			ST	D 0200	0	458	3489	276		00046	569	0144		724										
			OBS			458	34889	276	6				14	724										
			ST			458	3489	276		0004	717	0167	14	733										
			OBS			458	34890	276					14	733										
			ST			431	3489	276		00044	457	0190		730										
			OBS			431	34892	276						730										
			OBS	0345	0	415	34898	277	1				14	730										

REFER	ENCE	SHIP						MARS			non 1	IME			ORIGIN	ATOR*	S		PTH	MAX, DEPTH		WAV		WEA-	CLOUD			NODC	
CODE	10. NO.	CODE	LATITU			ITUDE	N N N	SQU			IGM II		YEAR	CRUIS		TATIO			MOI	OF		SERVA.		CODE	CODES	1		TATION	
-				1/10		1/10		10"	1.		$\rightarrow$	IR,1/10		NO.	+	4Ú W B	Ł K	100.		S'MPL'S	-	1	ER SEA	-	TYPE A M		-		
31	8008	ŧΕV	4657	5N	046	075W		149	66	04	07	200	1967					03	00	0.2	19	3	+	X 2	0 3		1	0030	
								ļ	W.A.	_		NIND	BARC	>	AIR TE		VI	, N		SPEC	CIAL								
									COLOR	TRANS	DIR.	SPEED OR	METE		DRY BULB	BUL	COS	nd U	BS. PTHS	OBSERV	A TIONS								
								}			0.6	FORCE	+	_		_		٠,	_										
			,						O T	50	04	508	16	6   1	000	-01			.6			<u> </u>	—т				_		$\neg$
		MESSENG TIME HR 1/1	WO.	CAR		DEPTH (	m)	Ţ	*C	2	٠/	\$IG A	1-A	ANO	VALY-X	M E 0.7	₹ Δ E DYN. / x 10	M	VEFO.		02 ml/l		4-P	TOTAL—P µg = at/i	NO2~N ug - al/I	NO3~N µg - nt/l	21 O4-21		S C
			1							1																			
			1	5	TO	000	o '	0	491	34	12	27	01 '	00	1056	4	000	0	146	595		1					,		
		20	0	ов		000			491		121	27							146										
				S	TO	001	0	Q	491	34	12	27	01	00	1057	5	001	1	146	596									
				ΟВ		001			491		121	27							14€										
					TD	002			487		12	27		00	1054	. 3	002		146										
		0.0	1	OB		002			487		121	27				-			146										
					TD	003			486 486		12 121	27 27		00	1054	2	003		146										
				08	10	005			485 485		121	27		0.0	1055	3	005		147										
				0B		005			485		121	27		00	1000		000		147										
				OB		007			431		370	27							146										
					TO	007			437		45	27		00	0760	1	007		146										
				QВ	S	007	5	0	437	34	450	27	33						146	589									
				08	S	009	5	0	414	34	438	27	35						146	583									
					TO	010			418		45	27		000	0741	4	009		146										
				ОВ		010			418		452	27				_			146										
					TD	012			413		48	27		000	0716	9	011		146										
				OB		012			413 409		481 64	27 27		000	0595	0	012		146										
				08	10	015			409		640	27		001	0090	9	012		146										
				08		015			426		688	27							147										
				OB		018			345		590	27								569									
					10	020			378		67	27		00	0546	5	015		146										
				ОВ		020			378		670			- 0		_			146										
				ОВ		022			468		862								147										
					TO	025		0	436		88	27	67	00	0454	2	018		147										
66				0 B	S	025	0	0	436	34	881	27	67						147	723									

	<del></del>				MARSDEN	STATION TIM		ORIGINATOR	°s (	DEPTH MAX.	, v	VAVE EVATIONS	WEA-	CLOUD			ATION
CTRY ID.	— SHIP	LATITU	DE LOI	NGITUDE LE	SQUARE	(GMT)	YEAR	CRUISE STATI		TO OF		GT PER SE	CODE	TYPE AM			UMBER
CODE NO.			1/10	1/10	10° 1° A	DAY HR.		<del>                                     </del>	-	- 13 1417 2 .	1	3 3	x 2	03			0031
31800	18 EV	4719	N 04	610 W		07 22			- 1-1-	384 03	30	<b>3</b>  2	1 1 2	1 012	1	,	3021
,					WATE		BAK		VIS I		CIAL						
					COLOR	RANS. DIR.	OR (mb			EPTHS	ATIONS						
					DT		508 20	3 000 -0	11 7	18							
				,	1 51	30 05	300   20			T		PO4-P	101AL-P	NO2-N	NO3-N	S1 O4-S1	
	MESSENG TIME HR 1/10	of NO.	CARD TYPE	DEPTH (m)	т °С	s */	SIGM 4-T	SPECIFIC VOLUME	\$ △ D DYN, M. x 103	VELOCITY	O <sub>2</sub> ml/l	μ <b>g</b> - α1/1	υg · α1/5	μg = α1/1	μg - σI/I	µg - 01 'l	рН
								}		1		l	l	I	ţ	1	1
	ı	'	STD	0000	0432	3438	2728	0008038	0000	14674							
	2.2	20	OBS	0000	0432	34375	2728			14674 14675							
			STD	0010	0432	3438	2728	0008048	8000	14675							
			OBS	0010	0432	34375	2728	0008058	0016	14677							
			STD	0020	0432	3438	2728	0000058	0016	14677							
	0.0	) 1	OBS	0020	0432	34375	2728 2728	0008037	0024	14677							
			STD	0030	0429 0429	3438 34375	2728	0000001	0027	14677							
			OBS	0030 0050	0427	3438	2728	0008036	0040	14680							
			STD	0050	0427	34375	2728	0000030	••••	14680							
			OBS STD	0075	0415	3438	2730	0007938	0060	14679							
			OBS	0075	0415	34375	2730			14679							
			STD	-	0408	3438	2731	0007823	0080	14680							
			OBS	0100	0408	34384	2731			14680							
			STD		0408	3442	2734	0007561	0099	14685							
			OBS	0125	0408	34422	2734			14685							
			STD	0150	0414	3454	2743	0006768	0117	14693							
			OBS	0150	0414	34539	2743			14693							
			OBS	0168	0363	34552	2749			14675							
			OBS	0182	0416	34707	2756			14701							
			OBS	0188	0396	34680	2756	0005537	0148	14694 14704							
			STO		0415	3471	2756	0005516	0148	14704							
			OBS	0200	0415	34714	2756			14729							
			OBS	0237	0457	34842	2762	0004924	0174								
			STE		0447	3485	2763 2763	0004724	0114	14727							
			OBS	0250	0447	34846	2768			14738							
			OBS	0260	0465	34930 3492	2770	0004328	0197								
			STO		0439 0439	34921	2770	0004720	J-7.	14733							
			OBS OBS	0300 0350	0439	34921	2773			14732							

FERENCE NO.	CODE	:	1/10	NOTION INDE	MARSDEN SOUARE	STATION TI	YEAR R.1/10	CRUISE NO.		TOR'S ATION JMBER	DEPTI TO BOTTO	DE	OF	OBSERY	AVE VATIONS	W EA THER CODE	CODE	5	S	NODC TATION TUMBER
TIOOOO	,	4740	NIO	4610 W	149 76		000 196		988		096	9 (	09 0	6 2	3	x 2	03			0032
					COLOR		SPEED BA	KO-	IR TEM		NO.		SPECIAL							0032
					CODE	TRANS. DIR.	OR (mi		RY JLB	WET CO	DEPTH	1000	ERVATION	12						
					DT	SD 05		13 00	06 -	006 7	23	+-		-						
1	MESSEN	CAST	CARD			1 0 1 0 1	010 2	T 1 -					_	4				_		
	TIME	NO.	TYPE	DEPTH (m.)	1 ℃	5 %.	SIGMA-T	SPECIFIC	VOLUM	I DIN.	M. 50	סאט LDCITY	, O2 m		PO4-P	TOTA L-P		NO3-N	\$104-51	
}	HR 1/	10		-				-		X 10	3 46	LDCIII	<u>'</u>		μg - ot/l	µg - 01/1	μg - ο1/I	µg - al/l	yg • at/1	рН
- 1		1 1	670	0000	0122								1		- 1					
	Ο	00	STO OBS	0000	0132	3387	2713	000	9394	000		4537								
		• •	STD	0010	0132 0100	33865 3384	2713 2714	000	0201			4537								
			085	0010	0100	33840	2714	000	9386	000		4524								
			STD	0020	0198	3420	2735	000	7314	001		4524 4574								
	0	02	OBS	0020	0198	34200	2735	000		001		4574								
			OBS	0025	0208	34240	2738					4580								
			STD	0030	0182	3430	2744	0006	5482	002		+570								
			OBS	0030	0182	34295	2744					+570								
			STD	0050	0241	3440	2748	0006	5147	003	7 14	+601	l							
			OBS OBS	0050 0055	0241	34400	2748					+601								
			510	0075	0222	34400	2750					+593								
			OBS	0075	0263 0263	3447 34465	2751	0005	851	005		615								
			STD	0100	0292	3453	2751 2754	0006		001		615								
			085	0100	0292	34530	2754	0005	026	006		633								
			OBS	0121	0311	34558	2754					633 645								
			STD	0125	0302	3456	2755	0005	514	008		642								
			OBS	0133	0295	34560	2756			000		640								
			STD	0150	0331	3465	2760	0005	100	009		659								
			OBS	0150	0331	34652	2760				14	659	)							
			STD	0200	0331	3466	2760	0005	094	011	9 14	668	3							
			OBS STD	0200 0250	0331 0336	34658	2760					668								
			OBS	0250	0336	3466 34664	2760	0005	136	014		678								
			SID	0300	0393	3479	2760 2765	000/	901	017		678								
			OBS	0300	0393	34791	2765	0004	004	0170		712								
			OBS	0383	046B	34920	2767					712								
			STD	0400	0442	3491	2769	0004	550	0216		751								
			OBS	0400	0442	34910	2769					751								
			STD	0500	0430	3492	2771	0004	443	0261		763								
			OBS	0500	0430	34920	2771				14	763								
			STD OBS	0600	0413	3492	2773	0004	350	0305		772								
			STD	0600 0700	0413 0403	34920 3492	2773	0001	201	- 2		772								
			OBS	0700	0403	3492	2774 2774	0004	331	0349		784								
			STD	0800	0388	34920	2776	0004	261	0300		784								
			OBS	0800	0388	34920	2776	3004	201	0392		795 795								
			STD	0900	0381	3492	2776	0004	260	0434		808								
			OBS	0900	0381	34920	2776	2004	- 00	0.54		808								
			OBS	0930	0377	34920	2777					812								

								MAX.	T		CLOUD	-	NODC
REFERENCE			MARSDEN	STATION TIM	E	ORIGINAT		TO DEPTH	OBSERVATIONS	W EA-	CODES		STATION
TRY IO. CODE LATITU	DE LONG	GITUDE BY	SQUARE	(GMT)	YEAR	CRUISE STA	TION MBER	OTTOM S'MPL"	S DIR. HIGT PER SEA	CODE	TYPE AMT	1	NUMBER
DDE NO.	1/10	1/10 =	10° 1° A	AO DAY HR.	1/10	NO.							
318008 EV 4759	N 046	510 W	149 76 0	04 08 0	24 1967	11P 988		042 10	05 3 3	1 X7	0 3	l	0033
318000 64 1 4.33	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		WATE		NO BAR	O= AIR TEMP.	°C vis.	NO. SPE	CIAL				
			COLOR	TRANS. DIR.	SPEED MET	ER DRY	WEI CODE		ATIONS				
			COOE	(m)	FORCE (mb	a) BULB (	BULB	-					
			DT	50 06	512 19	3 000	000 4	24					
	·		1 5 . 1	30   41			₹∆0	50,000	PO4-P	TOTAL-P	NO2-N	NO3-N	\$104-51
MESSENGE CAST	CARD	DEPTH (m)	r *c	s -/	SIGMA-T	ANOMALY-1107	DYN, M.	VELOCITY	O2 ml/l   pg = o1/l	νg - o1/1	yg = a1/1	μg - o1/1	µg - 01/1 pH
HR 1/10 T NO.	TYPE						x 10 <sup>3</sup>	-					
138 17 13	1											!	ļ .
	STD	0000	0391	3439	2733	0007548	0000	14657					
0.24		0000	0391	34386	2733			14657					
024	085	0010	0385	3445	2739	0007002	0007	14657					
	STD	0010	0385	34452	2739			14657					
	OBS		0385	3448	2741	0006815	0014	14659					
	STD	0020		3448	2741	3000013	0014	14659					
004	OBS	0020	0385		2742	0006668	0021	14658					
	STD	0030	0379	3449	2742	3000000	0021	14658					
	OBS	0030	0379	34491		0006041	0034						
	STD	0050	0362	3456	2749	0000041	0004	14655					
	OBS	0050	0362	34555	2749			14648					
	OBS	0072	0334	34640	2759	0005110	0048	14650					
	STD	0075	0338	3465	2759	0005119							
	STD	0100	0369	3473	2762	0004836	0060						
	OBS	0100	0369	34730	2762			14668					
	085	0105	0404	34820	2766			14685					
	OBS	0115	0372	34779	2766			14673					
	STD	0125	0372	3478	2766	0004519	0072						
	OBS	0130	0372	34779	2766			14675					
	OBS	0135	0364	34770	2766			14673					
	STD	0150	0364	3477	2766	0004530	0083						
	085	0150	0364	34770	2766			14675					
	STD	0200	0430	3488	2768	0004439	0105	14712					
	OBS	0200	0430	34879	2768			14712					
	085	0230	0424	34880	2769			14715					
		0250	0427	3488	2769	0004427	0128	14720					
	STD		0427	34884	2769	000		14720					
	OBS	0250	0427	3491	2770	0004395	0150						
	STD	0300				000427	. ,-,(	14733					
	OBS	0300	0439	34912	2770	000435	5 019						
	STD	0400	0432	3492	2771	000433	0 4 7 .	14747					
	OBS	0400	0432	34921	2771	000433	0 022						
	STD	0500	0422	3492	2772	000433	8 023	14759					
	OBS	0500	0422	34922	2772								
	STD	0600	0412	3492	2773	000431	6 028						
	OBS	0600	0412	34923	2773			14772					
	STD	0700	0399	3492	2775	000425	6 032						
	OBS	0700	0399	34924	2775			14783					
	STD	0800	0390	3493	2776	000423	7 036						
	OBS	0800	0390	34925	2776			14796					
	STD		0382	3493	2777	000422	7 040	8 14809	)				
	085	0900	0382	34926				14809	•				
	510		0369	3493	2778	000416	2 045	0 14820	)				
		1000	0369	34926				14820					
	085		0369	34926				14824					
	OBS	1020	0309	37720	2110								

ID. NO.	SHIP	LATITU	1/10	101	I/10	MAR SQU	ARE 1.		GMTI GMTI	]	YEA	IC.K	UISE IO.	RIGINA ST NO	TOR'S ATION JMBER		DEPTH TO BOTTON	DEPT OF S'MPL	Н ов	WAV SERVA	TIONS	7716	CODE	s		NODC STATION NUMBER
1008	Ev	4815	5N	04	610 W	149	1 1				196	7 1		988			1189	11	05			X 7				0034
							COLOR	_		SPEED		ARO-	A IF	R TEM	_	V15.	NO. 085.	SP	ECIAL						1	000
							CODE	(m)	DIR.	OR FORC	1	nbs)	BUL		BUTB ME1	CODE	DEPTHS	OBSER	VATIONS							
							ΟT	SD	06	518	]	.66	-00	6 -	006	4	26									
	MESSENGR TIME	CAST	CAR		DEPTH (m)	١,	*c	Τ.	.,			SPE	CIFIC V	VOLUM	, ,	<u>ک</u> . ۵.	1 501	UND		1			T		_	_
	HR 1/10	NO.	TYP	E	DEFIN (m)	'	C	,	٠/	SIG	M A - T	44	IOMAL	V-X107	DA	10 <sup>3</sup>		DCITY	02 ml/l		4~P	TOTAL-F	NO <sub>2</sub> -N μg + οι/Ι	NO3-N ug - 01/6		
ĺ												-			+		+			+-			-		+	-
			S	TD	0000	0	009	334	44	26	87	0	011	947	00	00	14	475	l		- 1		1	1	}	I
	046	ó	OBS		0000		009		440		87					•		475								
				TO	0010		008	334			87	0	011	940	0.0	12	14	477								
			OB 5		0010 0020		800	334			87							477								
	004		089		0020		006 006	334			87	0	011	928	00	24		477								
		-	083		0025		003	334		26	87 87							477 477								
			51		0030		000	334			87	Ω	011	898	0.0	36		477 476								
			OBS		0030	0	000	334	40	26			~	0,0	•	,,		476								
			OBS		0040		002	335		26								478								
			\$1	-	0050		065	338		2 <b>7</b>		0	008	887	0.0	57	14	515								
			0BS		0050 0075		065	338		27		_						515								
			OBS		0075		225 225	343 342		27 27		01	306	826	00	76		596								
			ST		0100		246	344		27		0.0	006	245	00	0.3		596								
			OBS		0100		246	343		27		01	,,,,,,	24)	00	92		611 611								
			ST		0125	0.	292	344	8	27		0.0	006	042	01	08		636								
			OBS		0125		292	344		27	50				-			636								
			ST		0150		307	345		27		0 (	005	569	01	22		648								
			OBS		0150		307	345		27							140	648								
			OBS		0200 0200		353 353	347		27		00	0048	818	01	48		678								
			ST		0250		365	347 347		27		0.0	006		0.1			578								
			OBS		0250		365	347	-	27		U	0046	088	01	12		592 592								
			ST	D	0300		377	347		27		0.0	0046	645	01	0.5	147									
			OBS		0300		377	347		276		•	, , , ,	0 4 5	0.4	,,	14									
			OBS		0356		371	347	99	270	68						14									
			ST		0400		13	348		27		0.0	044	406	04	41	14									
			OBS		0400		13	348		27							147	738								
			ST OBS		0500 05 <b>0</b> 0		11	348		27		0.0	044	460	02	85	147									
			OBS		0540		11	348 348		27							147									
			OBS		0575		41	349		277							147	_								
			ST		0600		38	349		277		0.0	043	356	03.	20	147	-								
			OBS		0600		38	349		277		00	U 7 3	0	Ų J.	- 7	147									
			ST	D	0700	04	19	349		277		00	042	280	03	72	147									
			OBS	_	0700		19	349		277	75	. •			•	_	147									
			STI	U	0800		10	349		277		00	042	272	04	15	148									
			OBS	0	0800 0900		10	349		277							148									
			OBS		0900		99	349		277		0.0	042	251	04	8	148									
			STI	Ω	1000		99 90	349		277		0.0	0/3				148									
			OBS	_	1000		90	349		277		00	042	43	050	00	148									
			ST	0	1100		80	349		277		00	042	11	054		148									
			OBS		1100		80	349		277		00	042	. 1 1	0.54	- 2	148									
			OBS		1140		78	349		277							148									

RENCE					_ <u>~</u> <u>~</u>	MARSDEN	STATION TI	ME		0		ATOR'S		DEPTH	MAX. DEPTH	025	WAVE SERVATIONS	WEA-	CLOUD			NODC
ID.	CODE	LATITU		LONGITUDE		SOUARE	(GMT)		YEAR	CRUISE NO.		A TION		TO BOTTOM	OF S'MPL"	1	HGT PER SEA	0000	TYPE AM	i	;	NUMBER
ND.	-	<u> </u>	1/10	-1/	10 =		MO DAY H	r		<u> </u>	_		-+					-		1		0036
8008	EV	4835	N	04610	w]				1967		988		,	1646	_15	04	3 2	X7	0 3	1	- 1	0035
						WA		SPEED	BARC	)- <del> </del> —	R TEM	WET	vis.	ND. OBS.	SPE	CIAL						
						COLOR	TRANS. DIR.	FORCE	METE		LB	BULB	CODE	DEPTHS	DRZEKA	ATIONS						
						ОТ	50 05	518		2 -00	)6	-006	4	28								
			_			<del>-                                    </del>	30 05	7	1			_		٠, -			T				SHD4-5	
	MESSENG!		CAR	DEPT	H (m)	τ *c	s ./	SIG.	MA-T	SPECIFIC	VOLUA LY-X10	yt 51	∆ D N. M. 10 <sup>3</sup>	. VELC		D2 m1/1	PO4-P	101AL-P	NO2-N ug - ot/i	NO3-N pg - ot/l	μg - α1/	
	HR 1/10		1461					1				,	103	1			-			-	-	+
																				-	ļ	
	1	,	s1	00 '01	000	0278	3434		40	0000	585	2 0	000		608							
	06	6	083		000	0278	34343		40			_ ^	a		608							
			S1		10	0280	3435		40	000	583	7 0	007		610 610							
			089		10	0280	34348		40	000	470	7 ^	014		614							
		_	S1		20	0284	3436 34360		41	000	0 / 6	, 0	014		614							
	00	3	08		20	0284	34362		41						615							
			OBS		)25 )30	0285 0287	34362		41	000	678	8 0	020		617							
			0B:		30	0287	34364		41	000	- 10	- 0			617							
				-	050	0289	3438		142	000	669	0 0	034		621							
			0B:		350	0289	34381	_	142						621							
					75	0410	3480	2	164	000	469	5 0	048		682							
			QB:		75	0410	34800	2	164						682							
			08		090	0390	34800		766						677							
			OB:		395	0420	34846		766						691							
			S		100	0405	3484		767	000	437	6 0	059		685							
			OB	-	100	0405	34839		767		. 20		0.70		685							
					125	0389	3483		769	000	428		0 70		682							
			ОВ	-	125	0389 0397	34833 3484		769 768	000	435	.a n	081		690							
					150	0397	34837		768	000	400	0 0	00,		690							
			ОВ		150 200	0404	3487		770	000	423	12 0	103		701							
			0B		200	0404	34870		770	000					701							
					250	0408	3487		769	000	433	8 0	124	4 14	711							
			ов		250	0408	34868		769					14	711							
					300	0415	3488		770	000	437	73 0	146	5 14	723							
			0.8		300	0415	34880	2	770						723							
			ОВ	S 0	331	0434	34907		770						+736							
			S		400	0413	3490		772	000	427	71 (	189		+739							
			ОВ	-	400	0413	34904		772				. 7 ^ -		739							
					500	0428	3492	_	771	000	443	, (	23:		4762 4762							
			08	-	500	0428	34918 3492		771 773	000	434	46 (	27		4772							
					600	0412 0412	3492	_	113 773	000	, - , .	(	, - , (		4772							
			08	-	700	0412			774	000	439	55 (	32		4785							
			08		700	0405			774	500		`	_		4785							
				-	800	0396	3492		775	000	434	44 (	36		4798							
			08		800	0396		_	775						4798							
					900	0385	3492	2	776	000	43(	07 (	40		4810							
			Q.E		900	0385			776				=		4810							
					000	0377			777	000	)43(	01 (	)45		4823							
			0.6		000	0377			777	000			140		4823 4839							
					100	0374			777	000	)439	54 (	)49		4839 4839							
			OE	-	100	0374	-		777 779	000	)42	76	<b>3</b> 53		4853 4853							
					200	0368			779	000	,46	, 0	,,,		4853							
			0.6	-	300	0368			780	000	042	42	357		4869							
			06		300	0365			780	001		- 8-	(		4869							
					400	0364			780	000	043	06	062		4885							
			O.E		400	0364			780					1	4885							
					500	0360			781	0.0	042	78	066		4901							
							3495		781						4901							

REFERENCE CIRY IO.	SHIP	LATITU	DE L	ONGITUDE HE	MARSOEN SOUARE	STATION TI	ME YEAR	ORIGINA		OEPTH	MAX. DEPTH	ORS	WAVE ERVATIONS	WEA-	CLOUD			NODC
CODE NO.	CODE	•	1/10	ONGITUDE HE		MO DAY H			MBER	MOTTOS	OF S'MPL"		HGT PER S	CODE				TATION
31800	8 EV	4425	N O	4811 W	149 48		091 1967	11P 988	4	3658	13	01	5 2	x2	7 8	1		0036
					WA	TER W	IND BAR	O- AIR TEM	. °C vis.	NO.	C D E	CIAL		,		•	,	00001
					COLOR	TRANS. OIR.	SPEED MET OR FORCE (mb		WET COD	OBS. DEPTHS		ATIONS						
						01	525 11	2 050	044 5	13								
	MESSENGE TIME HR 1/10	of NO.	CARD TYPE	DEPTH (m)	t °C	s */.	SIGMA-T	SPECIFIC VOLUM	₹ △ 0 DYN, M x 10 <sup>3</sup>	. VELO		02 ml/l	PO4-P +g - al/l	101AL-P	NO2-N μg - α1/I	NO3~N µg = a1/1	\$1 O4~\$1 µg - a1/1	
			STD	0000	0531	3396	2684	0012189	0000	147	709		'	'			1	
	09	1	085	0000	0531	33963	2684			147	709							
			STO		0531	3396	2684	0012200	0012	147	711							
			STD	0020	0531	3396	2684	0012219	0024	147	712							
	09	1	OBS	0027	0531	33962	2684			147								
			STD	0030	0455	3397	2693	0011370	0036	-								
			STD		0173	3400	2721	0008652	0056									
	09	1	085	0053	0164	34006	2722	0007/00		145								
	0.0		STD	0075	0459	3447	2732	0007683	0077	-								
	09	1	085 STD	0080 0100	0476	34517	2734			147								
	09	1	0BS	0106	0302	3439 34369	2742	0006769	0095	_								
	0,7	1	STD	0125	0270 0332	3452	2743 2749	0004003	0111	146								
			STD	0150	0386	3466	2755	0006082	0111									
	09	1	085	0160	0399	34696	2757	0003575	0125	146								
	0,	•	STD	0200	0386	3469	2757	0005413	0153									
	09	1	OBS	0213	0382	34685	2758	0005415	0175	146								
	,	•	STD	0250	0428	3479	2761	0005135	0179									
			STD	0300	0467	3488	2764	0004948	0204									
	09	1	OBS	0319	0475	34904	2765	000.,10	0-04	147								
		_	STD	0400	0453	3491	2768	0004697	0253									
	09	1	OBS	0426	0447	34908	2768	000,000,	0-00	147								
			STO	0500	0437	3492	2770	0004560	0299									
			STD	0600	0423	3493	2772	0004427	0344									
	09	1	085	T0644	0416	34929	2773			147								
			STD	0700	0403	3492	2774	0004331	0388									
			STD	0800	0386	3491	2775	0004302	0431									
	09	1	oBs	T0858	0378	34907	2776			148								
			STD	0900	0375	3491	2776	0004264	0474	148	306							
			STD	1000	0370	3491	2777	0004292	0516	148	320							
	09	1	OBS	1085	0367	34913	2777			148	333							
			STD	1100	0367	3491	2777	0004312	0559	148	36							
			STD	1200	0364	3492	2778	0004330	0603	148	51							
	09	1	085	T1276	0363	34922	2778			148	864							

REFEREI	NCE						- :	MAR	SDEN	STAT	ON TI	ME			С	RIGINA	ATOR'S		DEPTH	MAX.		W A	VE ATION!		WEA-	CLOU			NODC
TRY	10.	HIP ODE	LATITU		LON	GITUDE	10.5	SOL	JARE		GMT)	0.1/10	YEA	R	RUISE NO,		TATION		TO MOTTOM	OF S'MPL"			PER		CODE	TYPE A			NUMBER
	NO			1/10	0.4		-10	10	1'			113	196	7	HP			_	3200	13	03				х2	7 8			003
3 1/8	008	EV	4428	N	04	826	W	149	48 WA			IND		ARO-		IR TEA		1	NO.	-		1	- 1	,			•		
									COLOR	TRANS.	DIR.	SPEED	N N	ETER		RY	WEI	CODE	ORC		CIAL 'A TION S								
									CODE	(m)		FORC	-	mbs)	-	JLB	BULB	-				-							
									L.,		03	525	2	132	0	56	050	5	13		_	4		-	_		Т	1	
		ESSENG TIME R 1/10	CAST	C.A.	R D PE	DEPT	H (m)		of 10	s	٠/٠.	SIG	MA-	r	ANOM		. 0	∆ D YN. M. x 10 <sup>3</sup>	SOU	CITY	0 2 ml		O4-2 9 • 01/1		1A L - P - 01/1	NO 2-N			
												Ţ												ĺ					ļ
	ı		,	٠ ,	то '	0.0	000	. (	0510	33			577		001	285	6 (	1000		699									
		11	. 3	Q E			000		0510		843		577			270				699									
					OTO		010		0498	33			579			270 254		0013 0025		696 693									
					510		020		0487 0475	33 33			680 682			239		038		690									
		11	2	0.6	STD		030		0461		866		684		001	227		,000		686									
		11			STD		050		347	33			699		001	083	3 (	061	14	640									
		11	3	01			051		0336		910		700						14	635									
					STD	0	075		0295	34	28	2	734		000	751	6 (	084		626									
		11	13	0.6	35	01	077		0291	34	305		736							625									
				5	510		100		0449		58		742		000	677	8	102		700									
		11	13		35		102		0458		595		742		000			110		704									
					510		125		0457		60		743			674		)119 )136		708									
					STD		150		0446 0443		60 602		744 745		000	1664	.0 ,	1 30		707									
		11	13		35 5 T D		154 200		0380		62		753		.000	1586	0 (	167		688									
		11	1 2		35		208		0376		629		754		••••	,,,,,				688									
		1.1			510		250		0445		76		757		000	1554	5 (	195	14	725									
					STD		300		0493	34	87		760		000	532	1 (	222		755									
		11	13	01	35	TO	316		0501	34	894		761							761									
					STD	0	400		0466		90		766		000	)489	9	0274		761									
		11	13		B 5		425		0457		906		767							761									
					STD		500		0444		91		769			470	_	0322 0368		768									
					STD	-	600		0428		91		770 771		000	)462	. 0	0 2 0 6		782									
		1 :	13		85 510		643 700		0421		906		772		000	)449	8.6	0414		788									
					STO		800		0396		91		774			)44]		0458		798									
		1.	13		BS		852		0388	_	911		775		- 5 (		-			803									
		1.			510		900		0380		91		776		000	)430		0502		808									
					STD		000		0366	34	91	2	777		000	)42]	15	0545		819									
		1	13		BS	Т1	080		0359		916		778							829									
					STD		100		0358		92		778			0418		058		832									
					STO		200 266		0354		92 917		779 779		000	0421	16	0629		847 858									
			13		BS																								

REFERENCE CTRY ID.	SHIP	LATITU	OE I	ONGITUDE LA PLANCE	MARSDEN SQUARE	STATION T		YEAR	ORI CRUISE	GINAT	TOR'S	$\dashv$	DEPTH TO	DE	AAX.	085	WAVE ERVATION	s Y	VEA-	CLOUD			NOD	SN SN	
CODE NO.	CODE	•	1/10	· '1/10 ° ₹	10" 1"	MO DAY F	R_1/10		NO.	NU	MBER		BOTTO	M S'N	APL"S		HGT PER		300	TYPE AM		_	NUMB	ER	
31 800	8 EV	4431	N C	4836 W				967		988		إل	2468	8	15	03	6 2	- 10	X 2	03			00	38	
					COLOR		SPEED OR	BARO- METER		TEMP	WET	VIS,	NO. 085.	0.00	SPECI SERVA	AL									
					CODE	TRANS. DIR.	FORCE	(mbs)	BUL		BULB		DEPTH	15 08.	36444	110143									
				1	DT	SD 05	528	139	05	6	050		36		-		7	,							
	MESSENGR TIME		CARD	DEPTH (m)	1 ℃	s */	SIGM	A-T	SPECIFIC V		E S OY	Δ D.	SC	TOCIL.	, c	) 2 ml/l	PO4-P	101A - 84		NO2-N vg - a1/l	NO3-N	SI 04-		H C	
	HR 1/10						-	-			×	103	-		+		99-000	70-	0,71	py - ui/i	yg - at/l	νg - α1	-		
	1		ST	0000	0612	3404	268	30	0012	593	100	000	1	474	3		i		١				-	l	I
	13	3	OBS	0000	0612	34035	268	30						474											
			ST0 085	0010	0611	3404	268		0012	594	00	13		474											
			ST		0611 0611	34035 3404	268 268		0012	608	00	25		474 474											
	00	3	085	0020	0611	34035	268	30	•				1	474	6										
			OBS STI	0025	0609 0605	34035 3403	268 268		0012	556	0.0	38		474. 474											
			085	0030	0605	34034	268		0012	220	0.	,,,		474											
			OBS	0043	0595	34022	268							474											
			STI OBS	0050	0413 0413	3413 34131	271		0009	728	00	60		467 467											
			OBS	0060	0414	34319	272							467											
			STO		0681	3473	272		0008	394	00	83		479											
			OBS ST	0075	0681 0585	34729 3465	272 273		0007	<b>7</b> 9∩	0.3	03		479. 475											
			OBS	0100	0585	34652	273		000,	.,,	٠.	. 0 )		475											
			OBS	0115	0477	34528	273		0007	0	0.1			471											
			STO OBS	0125 0125	0604 0604	3479 34785	274 274		0007	066	0.1	22		477: 477:											
			085	0135	0623	34822	274							478											
			STO		0597	3482	274		0006	775	0 1	39		477											
			08S 08S	0150 0170	0597 0570	34817 34814	274							477. 476.											
			085	0194	0619	34972	275							479											
			STO		0607	3497	275		0005	817	0 1	170		478											
			08S	0200 0204	0607 0596	34972 34970	275							478: 478:											
			085	0221	0605	34992	275	6						478											
			STO OBS	0250 0250	0573 0573	3499 34988	276 276		0005	341	0 1	98		478											
			085	0269	0548	34989	276							478. 477:											
			ST		0546	3499	276	4	0005	030	0 4	24	14	477	8										
			OBS OBS	0300 0342	0546 0500	34994 34982	276 276							4771 4760											
			OBS	0380	0505	35010	277							477											
			STO		0473	3498	277		0004	37 <b>7</b>	04	71		476											
			08S ST0	0400	0473 0447	34981 3499	277 277		0004	125	03	14		476! 477:											
			OBS	0500	0447	34989	277	5			-			477											
			STU		0433	3499	277		0004	060	0 =	55		478											
			08S ST0	0600	0433 0415	34990 3498	2 <b>7</b> 7		00046	003	03	95		478: 479(											
			OBS	0700	0415	34983	277	8		- 0 5	•			4790											
			STC OBS	0800 0800	0400 0400	3498 34979	277 277		00039	954	04	35		480											
			STC		0393	3498	278		0003	950	04	74		480: 4814											
			085	0900	0393	34981	278	0						4814											
			OBS	1000	0380 0380	3497 34973	278		0003	945	05	14		4825 4825											
			STO		0375	3498	278		0003	959	05	53		402: 484(											
			OBS	1100	0375	34975	278	1					14	4840	0										
			STC OBS	1200 1200	0370 0370	3498 34975	278 278		0003	984	05	93		4855 4855											
			STO	1300	0370	3498	278		0004	070	06	33		487											
			085	1300	0370	34975	278	2	0001	٠			14	487	1										
			STC OBS	1400	0363 0363	3498 34975	278 278		00040	166	0.6	74		4885 4885											
			STO	1500	0363	3498	278	3	00040	097	07	15	14	490	2										
			085	1500	0363	34982	278	3					14	4902	2										

								_											MAX.		WAVE	_	WEA-	CLOUD	Τ		NODC
REFERENCE	SHII	$\prod$					DRIFT	MARS	N3C	STATIO	N TIM	٤   ۲	EAR	-		A TOR'S		DEPTH	DEPTH	085	SERVATION	NS	THER	CODES			STATION
CTRY ID.	COD		ATITUC		LON	GITU DE	18 S			MO DA				CRUISE NO.	2	TATION UMBER		BOTTOM	S'MPL'S	DIR.	HGT PEP	SEA	CODE	TYPE A.M	7	_	NUMBER
ODE NO.	+-			1/10			-	10*					967	IIP	98	9.7		1053	10	04	8 2		X2	03			0039
318008	8 E V	/ 4	433	N.	048	856 W	ll	149			9   1 9 WIE		_	1-1-	AIR TEA		7	_	1		10121		1	, 0.5			•••
								- 1	WAI			SPEED	BARC	)- <del>                                    </del>	DRY I	WET	VIS.	NO. OBS.	OBSERV	LIAL							
									CODE	TRANS.	31R.	OR FORCE	[mbs		ULB	BULB	0000	DEPTHS	OBSERT	A 110113							
								1	DT	SD	_	529	14	2 0	61	056	6	23			]						
										30			1 -	- 1 -					Τ Τ		-	.				SI O4-	٠.
	MESSE		AST	CAI		DEPTH	[m]	1	°C	5 .	۷. ا	SIGM	A - T	SPECIFIC	VOLU	ME i	E A O	SO	OCITY	0 2 ml/	1 PO4-		10TAL-P pg - at/l	NO2-N pg - al/l	NO3-N ug - at/l		
	HR 1	AE OF	NO.	TY	PE	01								Alton		`	x 10 <sup>3</sup>					-	-	-		+	
	10.5	<del>" " </del>														1		İ			l	l					
		,	- 1	S	TD	000	0	່ ວ	427	337	6	267	9	001	262	0	3000	14	663								
		150		08		000			427	337		267	9						663								
		100			TD	001			428	337	6	267	9	001	262	4	0013		6665								
				08		001		0	428	337	61	267	9						665								
					TD	002			428	337	6	267	9	001	263	3	0025		+667								
		002		08		002	0	0	428	337	61	267	19						667								
				08		002		0	428	337	61	267	9						668								
					TD	003			423	337	6	268	30	00	1259	2	0038		+667								
				0.8		003	30	0	423	337	61	268	30						4667								
					TD	009	0	0	379	337	4	268	32	00	1237	5	0063		+651								
				0.8		005	0	0	379	337	35	266	32						+651								
					STD.	001	75	0	352	337	6	268	3 7	00	1196	7	0093		4644								
				0.8		001	75	0	352	337	58	268	37						4644								
				0.6	35	008	35	0	350	337	95	269	90						4645								
				08	35	009	94	0	411	340		27							4675								
					OTE	010	00	C	369	340		27		000	0973	30	012		4660								
				08	35	010	00	0	369	3 40		27							4660								
					STD	013	25		307	343		27		00	0732	21	014		4640								
				0.6	35	013	25		1307	343		27					- 3 -		4640								
					STD	01	50		1320	345		27		0.0	058	7 /	015		4653								
				0	38	01	50		320	345		27				_			4653								
					STD	02	00		1324	345		27		00	055	38	018		4664								
				0	85	02			324	345		27							4664								
				:	STD	02			344	346		27		00	054	JZ	021		4681								
				0	BS	02			344	346		27			05.3		0.17		4681								
					STD	03			395	341		27		00	052	44	024		4712 4712								
				-	85	03			395	34		27		0.0	0.0	2 2	0.20		4763								
					STD	04			471	349		27		00	048	د ع	049		4763								
					88	04			471	_	918	27		00	045	. 7	033		4771								
					STD	05			1450			27		00	045	4 /	ودن	-	4771								
					85	05			450		937	27		00	044	77	038		4781								
					STD	06			435	349		27 27		00	044	1 1	0 - 8		4781								
					85	06			1435		937		12 74	0.0	043	46	042		4787								
					STD	07			0410			27		00	043	-0	0 - 2		4787								
				0	85	07	-		3410		929		74	0.0	1044	12	047		4806								
				_	STD	08			0415				74	00	4	1 -2	J + 1	-	4806								
					BS	08			0415		941	_	77	0.0	042	1.8	051		4812								
					STD	-	00		0390					00	, U - Z	10	001		4812								
					85	-	00		0390		940		77	0.0	042	6.8	055		4827								
					STD		00		0386				77	00	,,,42	-0	ررن	-	4827								
					85		00		0386		939		77						4830								
				0	85	10	15		0386	54	940	21	77					•									

CTRY IO.	SHIP	LATITU	DE	LONGITUD	DRIFT	M ARS	GEN ARE	STATION	TIME	Υ .	EAR	CRUISE	RIGIN	TOR'S		DEPTH TO	MAX. DEPTH	08		VE A TION	s	WEA-	CLOUD			NODC
CODE NO.	0001		1/10	• 1,	/10 P =	10*	1*	MO DAY	HR.1/	10		NO.	N N	UMBER	-	BOTTOM	S'MPL"S			PER		CODE	TYPE AM	<del>,</del>	- 1	NUMBER
318008	8 EV	4435	N	04903	w	149	49	04 09	16	8 1	967	118	98	3.8		0430	04	05	1	2		<u> </u>		1		
						-	WA		WING				IR TEA		Т	NO.			18	4	- 1	X 2	0 3	1	- 1	0040
							COLOR	TRANS OIL		EED OR	METE	· -	RY	WET	VIS.	OBS.	OBSERV									
							CODE	tm1		DACE	(mbs	81	JLB .	BULB		DEPTHS	003687	~ 110113								
						- 1	DT	SD 0	6 5	30	13	2 0	61	056	6	18			]							
	MESSENG TIME	CAST	CAR			Τ.	ho.				$\neg$	SPECIFIC	VOLUA	٤ ٤	A Q	sou	INO.		Ή.		1					_
	HR 1/10	T NO.	TYPE		H (m.)	'	℃	5 %.		SIG M A	-т	ANOM	LY-110	7 01	( )(J	VELC		02 ml/		PO 4 — P g - o1/I			NO2-N pg - at/l	NO3-N pg - ot/l	\$1 O4-5 ug - 01/	
	316 1716					+			+		-+			+		+	-		+		+	-			7,	-
	1		S 1		000	1 0	116	3330		266	۱	001	340	.	000	1.6	E 22									
	16	8	085		000		116	3329		266		001	,000	+ 0	000		522 522									
		_	51		10		115	3330		266		001	360	. 0	014		523									
			085		010		115	3329		266			- 00.	, ,	017		523									
			S 1	00	20	0	111	3329		266		001	360	5 0	027		523									
	00	1	089	00	020	0	111	3329		266							523									
			085		25	0	110	3329	3	266	9						523									
			51		30	0	103	3329		266	9	001	360	3 0	041	14	521									
			085		30		103	3328		266						14	521									
			51		50		062	3333		268	_	001	2506	0 0	067		449									
			085		50		062	3332		268							449									
			S1 085		)75 )75		002 002	3352 3352		269		001	125,	2 0	097		484									
			51	_	100		229	3381		269. 270		001	2 = 2 /	^	1 2 /		484									
			085		.00		229	3381		270.		001	J D 34	+ 0	124		596 596									
			085		.05		255	3385		270							508									
			085		11		115	33810		271							547									
			ST		25		132	3391		271		000	9091	0	148		558									
			085		25		132	33908		271		000	,,,,		- 40		558									
			ST	D 01	50	04	412	3439		273		000	7843	0	170		590									
			085	01	50	04	412	34393	3 2	273	1					146	590									
			085		65		574	34665	5 ;	2734	<b>'</b>					14	763									
			ST		00		345	3442		274		000	7030	0.	207	146	570									
			085		00		345	34418		2740						146	570									
			085		19		370	34540		274						146										
			ST		50		324	3455		275		000	854	0.	239											
			085		50		324	34553	_	275							571									
			ST		00		361	3466		2758		000	440	0.4	267	146										
			085 ST		00		361 426	34662 3481		2758 2763		0000	16.		2 2 2	146										
			085		00		+26 426	34805				000	154	0.	320	147										
			003	04	00	0.4	+20	34005	, ,	276:	,					147	143									

REFERENCE	51115				_ =	MAR	SOEN	STATI	ON T	ME		ORIGIN	ATOR	7 2		MAX,				T . —		- 1	
CTRY ID.	CODE	LATITU	IDE	LON	GITUDE ES	sou		to	GMT)		YEAR		TATIO		DEPTH TO	DEPTH	OB5	WAVE SERVATIONS	WEA	CODE			NODC
CODE NO.			1/10		1/10	10*	1.	MO D	AY H	R.1/10			NUME		BOTTOM	S'MPL"	DIR.	HGT PER S	0000				NUMBER
31800	8 EV	4436	N	04	905 W	149	49	0410	9 :	73 1	967	I1P 98	RQ		0177	01	05						
							WAT			IND	BARG	4 10 75				1 01	1 03	6 2	1 X Z	1 0 1 3	1		0041
							COLDR	TRANS.	DIR.	SPEED	METE	<i>-</i>	WE	- VIS	NO. QBS.	OBSERV	CIAL						
							COOE	(m)	DIK.	FORCE	(mbs	BULB	BUI		DEPTHS	CESERA	AIIONS						
							DT	SD	06	530	12	5 050	04	44 6	12								
	MESSENG		CA	RO								SPECIFIC VOLU		₹ △ 0				T	i –	_		1	
	HR 1/10	T NO.	TY		DEPTH (m)	1	℃	2 .	٠/٠٠	SIGMA	1 – A	ANOMALY-X		DYN. M	VEFO 200		02 ml/l	PO4-P	101AL-P	NO2-N	NO3-N	SI O4-50	
	17.10	1	-	$\rightarrow$		-		-	_	-				x 103	-	-	_	pg - 0//	2g - 4171	μg – at/l	yg - 01/€	µg - a1/1	c
			١ .			1					- 1					1							
	17	2		TD	0000		032	331		266		001408	0	0000	144	482							
	1,	,	08	-	0000		032	331		266					144	482							
			08	TD	0010 0010		030	331		266		001406	8	0014	144								
				TD	0020		030 016	331		266			_		144								
	00	1	08		0020		016	331 331		266		001404	3	0028	144								
		•	08	_	0025		035	331		266					144								
				TD	0030		051	331		266 266		001301	_		144								
			ОВ		0030		051	331		266		001381	9	0042	144								
			08		0040		071	332		267					144								
			S	TD	0050		068	333		267		001268	3	0069	144								
			08	S	0050	-0	068	332		267		001000		000)	144								
			S	T O	0075	-0	22	334	5	268		001174	7	0099	144								
			08		0075	-0	220	334	45	268	8				144								
				ΤD	0100	0	040	335	9	269	7	001094	4	0127	145								
			08	-	0100	0	040	335	90	269	7				145								
			08		0120		208	339	30	271	3				145								
				TD	0125	0	198	339	3	271	4	000941	3	0153	145								
			08		0125	0	198	339	28	271	4				145								
				TD	0150		170	339		2720	)	0008834	+	0176	145	-							
			08	5	0150	0	170	339	78	272	3				145	80							

REFERENCE CTRY ID. CODE NO.	SHIP	LATITU	DE 1/10	LONGITUOE	P C C C	MARSOEN SQUARE	STA	TION	TIME } HR,1/10	YEAR			TAT		-	OEPTH TO BOTTOM	M A OEPT OF S'MP	Н с	858	VAVE RVATIONS	0.00	8	CLOUD CODES		51	NDDC ATION UMBER	
31800	8 EV	4437	N (	04912 W	1	49 49	04	09	180	196	7	IIP 98	90			0055	0	0 0	4	8 2	x	2 !	0   3	l .	1	0042	1
1 311800	OI LV I	77)		J 4 / 1 L		WA		Ť	MIND		RO.	AIR TE	MP.		VIS.	NO.	S	PECIAL	1								
						COLDE	TRAN (m)	S. DIR	SPEE OR FOR	1 77-	TER ba)	BULB			CODE	OBS. OEPTHS	OBZE	RVATION	S								
						DT	SI	0 06	5 53	0 1	25	050	0	44	6	05		_								-	_
	MESSENG TIME	of NO.	CARD TYPE	OEPTH	lm I	1 °C		s -/	\$10	GMA-T	5	SPECIFIC VOLL	M.E.	170	103 7. W		UND OCITY	02 m	1/1	PO4+P	TOTAL- pg - at		NO2-N µg - st/l	NO3-N µg - at/l	\$1 O4-\$1 \$1 o - \$1	рН	C C
	HR 1/10	+	-		-		+							1								1					- [-]
	i	I .	ST.	000 م	ا م	-0063	3	312	<sup>'</sup> 2	664	1	001408	6	00	00	14	438	'		•							
	18	.0	085	-		-0063	3	312	1 2	664							438										
	• •		ST		0	-0064		312		664		001407	0	0.0	14		+439										
			OBS	001	0	-0064		312		664							4439										
			ST			-0070		313		665		001400	06	00	28		4438 4438										
	0.0	1	obs			-0070		312		665		001391	Ω	00	42		4437										
			51			-0076 -0076		314 313		666		00107	. 0	0.0	, 42		4437										
			OBS			-0076		321		672		001333	3 7	00	069		4436										
			ST 0BS	-		-0086		320		672							4436	•									

																	1 2	,				-					ı
REFERENCE	SHIP	LATITU	DE LC	NGITUDE	A S	ARSOEN QUARE		ION T		YEAR	CRUIS ND.		TATIO	N	_	10 10 10	DEPTH OF S'MPL'	08	AVR32		THER COO		CLOUG		\$1	NODC FATION UMBER	,
CODE NO.	CODE	<u> </u>	1/10	1/10	- 1	0. 1.	мо	DAY	18,1/10		_	+ -	_		+		+-	+	+			+	0 3			0043	
31800	BEV	4417	2N 0	49130W	1.	49 49	04	22	204	1967					19	0084	01	30	8	2	X2	1	013	l	1 '	JU431	
						WAT	ER	-	WINO	BARG	)· <u> </u>	AIR TEA	_	_ v	15.	NO.	SPI	CIAL									
						COLOR	TRANS (m)	OIR.	SPEED OR FORCE	/	1	BULB	BU	LB	DDE	DEPTHS	ORZEN	VAIIUNS									
						DT	SD	31	535	15	2	028	0	22 6	5	10			<u> </u>			_				_	$\neg$
	TIME	CAST NO.	CARO	DEPTH	mi	† <b>°</b> C	5	-/	SIG	M A – Î	SPECIF	MALY-XI	ME 10?	₹ △ 0YN. 1 X	M		DCITY	D2 ml/		04-P - a1/I	101AL- 29 - 01/		ND2-N /g - a1/l	NO3-N ug - ot/l	51 O4-51 49 - 01/1	рН	000
	HR 1/1		-	-	_		1												Ì								
		ı	STD	000	o '	0270	33	46	26	71	00	1346	2	000	00		592										
	20	4	OBS	000	0	0270		460		71							592										
			STD			0267	-	46	_	71	00	1345	0	00	13		593 593										
			085	001		0267		3459		71	00	1344		00.	27		588										
			STD			0253		345 3445		71 71	00	1344	7	00.	٠,		+588										
	0(	) [	085	002		0253		3482		73							593										
			OBS			0262	-	347	-	73	0.0	1323	31	00	40	14	586										
			510 085	003		0244		3465		73	• •					14	4586										
			085	004		0217	_	3439		73						14	4575										
			STC			0520		400		88	0.0	1182	23	00	65	14	4713										
			085	005		0520		400	3 26	886							4713										
			085	006		0550	3	4100	0 26	593							4729										
			085	006	5	0541		4090		593							4726										
			OBS	007	0	0550	3	414	0 2	596						14	4731										

SHIP		TITUDE 1/10		SITUDE E	007	AARSDEN SQUARE	STATION TIN	YEAR	CRUISE S	ATOR'S TATION NUMBER		DEPTH DEPT TO OF OTTOM S'MPL	H 085	WAVE ERVATIONS HGT PER SEA	WEA- THER CODE	CODES		5	NODC TATION UMBER
		- 11									-				-	TAN B 3441	_	-	
08 EV	44	+149N	049	9000W	1			16 1967			_   C	0667 06	32	6 2	X 2	0 3			0044
						WAT	ER W	IND BAR		MP. °C	VIS.	NO. SP	ECIAL						
						COLOR	TRANS. DIR.	OR (mb)		W ET BULB		OBS. DEPTHS OBSER	ROTTAV						
						CODE			#1 80 FB	BULB	1	30,1115							
						01	50 31	S25   16	9   022	017	1 1	31	1						
MESSEN	NGR C	ASI CAR	D .						SPECIFIC VOLU	≨	ΔD	FOLIND	1	00 0				T	
TIME	E of N	IO. TYP		DEPTH (m)		t °C	5 %.	SIGMA-T	ANOMALY -X1	07 D	△ D N. M.	VELOCITY	O 2 m1/1	PO4-P yg - 01/1	10TAL=P ug = ot/h	NO2-N µg - a1/l	NO3-N	51 O4-51 ug = at/1	pН
HR 1/	/10		-		+			-	_		103	-		7, 111		77 000	μg - αI/I	yy - 0// 1	
			1																ĺ
		S	TD	0000		-0024	3301	2653	001509	4 0	000	14454							
2	16	OB:	S	0000		-0024	33009	2653				14454							
		S	T O	0010		-0025	3301	2653	001507	9 0	015	14455							
		08	S	0010		-0025	33010	2653				14455							
		S	TD	0020		-0025	3302	2654	001501	4 0	030	14457							
0	04	OB:		0020		-0025	33018	2654				14457							
		OB:	S	0025		-0025	33023	2655				14458							
		S	TΟ	0030		-0025	3310	2661	001438	4 0	045	14460							
		OB:		0030		-0025	33100	2661				14460							
		08	S	0041		-0040	33270	2675				14457							
		08.	5	0045		-0019	33385	2683				14469							
			T D	0050		-0041	3343	2688	001178	8 0	071	14460							
		0B	S	0050		-0041	33430	2688				14460							
		5	TD	0075		0011	3361	2700	001065	3 0	099	14491							
		08:	S	0075		0011	33609	2700				14491							
		08:	S	0085		0072	33770	2710				14523							
		S	T D	0100		0573	3451	2722	000870	5 0	123	14750							
		QB:	S	0100		0573	34510	2722				14750							
		08:	5	0110		0657	34650	2722				14787							
		5	TD	0125		0595	3456	2723	000865	5 0	145	14763							
		08	S	0125		0595	34557	2723				14763							
			T D	0150		0806	3499	2728	000831	9 0	166	14856							
		08:	5	0150		0806	34990	2728				14856							
		08:		0190		0735	34924	2733				14834							
		S.	0	0200		0655	3484	2738	000739	6 0	205	14804							
		ОВ:	S	0200		0655	34843	2738				14804							
		OB:		0205		0551	34731	2742				14761							
		08:		0730		0538	34778	2748				14761							
		S		0250		0450	3466	2749	000633	2 0	240	14726							
		089		0250		0450	34662	2749				14726							
		OB:		0261		0375	34636	2754				14696							
		5		0300		0471	3482	2759	000544	1 0	269	14745							
		0В:		0300		0471	34820	2759	0000744	. 0	- 0 7	14745							
		083	_	0302		0483	34837	2759				14751							
		083	_	0323		0468	34816	2759				14748							
		083		0340		0487	34875	2761				14759							
		08		0350		0400	34775	2763				14723							
		089		0392		0399	34810	2766				14730							
		s.	_	0400		0410	3482	2766	000483	6 0	321	14736							
		OB:		0400		0410	34824	2766	300403	- 0	- 2 1	14736							
		OB 5		0415		0410	34848												
		51		0500		0440	3492	2766 2770	000456	s ^	368	14747 14767							
		0Bs		0500		0440	34919	2770	000496	, 0	-00								
		\$1		0600		0440	34919	2770	000450		. 1 3	14767							
		0B:		0600		0437	3494		000450	1 0	+13	14782							
		089				0437		2772				14782							
		0.03	,	0630		0427	34935	2773				14783							

														ORIGIN	* TOP'S				MAX.		WAVE		WEA		oup.			,	HODE
REFERENC		SHIP	LATITUE	7.5	LONGITUDE	DRIFT	MARS SQU	DEN ARE	STATION T	IME	YE	EAR	CRUIS	E S	TATIOI	4	DEPT	2   '	OF	085	ERVAT	ONS	THER	C .	ODES			S1	ATION BER
TRY IC	). 5.	BOODE	·	1/10	11/		10*		MO DAY	18,1/1	Ö _		NO.		UMBE	R	8017	OW 2	'MPL'S	D1R.	HGT PE	P SEA	- 000	TYP	T M, A		_		
3180	-	FV	4412	-	048460	w	149	48	04 22	231	19	967	11	P 98			192	20	15	32	6 2		X 2	10	3				0045
2100	0 9							WAT		DNIW		BARC		AIR TEA		vis,	NO 08		SPEC										
								COLOR	TRANS. DIR.	C	ED A RCE	(mbs	R )	DRY BULB	BULS	CODE	O8	ths 0	8SERV	LIIONS									
								DT	SD 31		20	18	6	011	00	6 7	3(	0											,
	Γ.	.cccence							T	1				FIC VOLU	ME	<b>≥</b> △ □		SOUN	0	O 2 m1/1			TOTAL-		2-N	NO3-		04-5	pH
		MESSENGR TIME		CARE		-l (m)	1	℃	s ·4.	1 2	IG M A	·-T	ANO	MALY-X1	07	X 103	.   ,	AFFOC	111	0 2 11111	- و د	01/1	μg - α1/	1 49	- at/[	yg - at	/l 9	g - a1/l	_
	1	HR 1/10	-				-		1	1-														1			1		1
	ı		1	S1	D 00	00	, 0	018	3315		266	3	00	1418	8	0000		144											
		231	l	085	00	00		018	33152		266					001/		144											
				S1	_	10		1017	3316		266		00	1413	5	0014		144											
				085		20		017	33158 3316		266 266		0.0	1411	0	0028		144											
		009	5	S1 085		20		017	33161		266		•		-			144											
		00.		S		30	C	015	3317		266		0.0	1402	2	0042		144											
				083	5 00	130		015	33171		266							144											
				08	-	145 150		0040	33298 3345		267 268		nn	1189	0	0068		144											
				08:		150		0009	33446		268 268				•			144											
				08		60		0018	33518		269							144											
				08		70		0057	3366		270							145											
						75		0053	3370		270		0.0	1018	3 1	009		145											
				OB:	~	)75 )80		0053	3370		270							145											
				06:		100		380	3437		273		0.0	00764	9	011	8	146	68										
				08		100		0380	3437	0	273	3 3						146											
						125		700	3487		273		00	0077	14	013		148											
				08	-	125		0700	3486 3494		273							148											
				08		130 150		0730 0699	3494		274		0.0	0071	46	015	6	148											
				08		150		0699	3494		274							148											
						200		0598	3487		274		0	0064	63	019	0	147											
				08		200		0598	3487	-	274							147											
				08		215 250		0515 0570	3478 3494		275		0	0056	61	022	0	14											
				08		250		0570	3494		27			0020	•	0-2	•		779										
						300		0496	3490		276	52	0	0051	33	024	7	147											
				08		300		0496	3490		27		_			0.10			757										
						400		0485	3497		270		0	0045	11	029	6	147	769										
				08		400 500		0485			27		0	0042	60	034	0		767										
				08		500		0440			27		•	-				14	767										
						600		040B			27		0	0041	59	038	12		770										
				0.8	_	600		0408			27		0	00/-1	2.0	042	2		770 779										
						700		0391			27 27		U	0041	2 U	0-42	ر.		779										
				08		700 800		0387			27		0	0040	99	046	5	14	795										
				08		800		0387			27								795										
				5	TD 0	900		0383	3494		27		0	0041	13	050	)6		810										
				0.8	-	900		0383			27		^	0041	5.5	054	. 7		810 825										
						000		0379			27 27		U	0041	,,	0,74			825										
				0 6		100		0378			27		0	0042	23	058	39	14	841										
						100		0378	3494	+4	27	79			_				841										
					STD 1	200		0374				79	C	0042	47	063	51		856 856										
						200		0374			27	79 80	_	0042	65	06	74		875										
						300 300		0378				80		,0042					875										
						400		0370				81	(	00042	279	07	16		888										
						400		0370				81							888										
					STD :	1500		036				81	0	00043	335	07	60		904										
				0	BS	1500		036	349	50	27	81						14	904										

	, ,				,						MAX	_		-,				
EFERENCE BY 10.	SHIP	LATITU	DE	FONGITUDE FINA	MARSDEN SOUARE	STATION TI IGMTI	ME		STATION	OEP1	H DERTH	ОВ	WAVE SERVATIONS	WEA-	CLOUG		9	NODC
DE NO.	CODE	•	1/10	· 1/10 0 3	10" 1"	MO OAY H	R.1/10	NO.	NUMBER	BOTTO	S.W. PF.	S DIR.	HGT PER SEA	CODE	TYPE AM	1	1	1 U M BER
318008	EV	4410	ION	048324W	149 48	04 23 0	09 1967	1 11P 98	194	310	19 15	31	6 2	X 2	03	1		0046
					WA		IND BAR	0-	MP. C	NO.		CIAL						
					COLOR	TRANS. DIR.	SPEED MET OR (mb		WET CO	DE DE PTI	OBSER'	ATIONS						
					OT	50 31	\$10 20		000 6	_			1					
					1 101	30 31	310 20	1										Т
	MESSENGA TIME	CAST NO.	CARD	DEPTH (m)	1 °C	s */	SIG MA -T	ANOMALY-X	ME \$ △ DYN. X 10	M. V	ELOCITY	02 ml/	PO4-P	101AL-P pg = q1/1	NO2-N µg - at/l	NO3=N μg - α!/l	51 O4=5 µg = o1/	рН
	HR 1/10	-				+			110	-			+		-	-		+
		l		D 0000	0477	3379	2676	001292	2 000		4684			l				I
	00	Q	ST OBS		0477	33787	2676	001292	:2 000		4684							
	00	,	ST		0477	3379	2676	001291	0 001		4686							
			085		0477	33790	2676			1	4686							
			ST		0477	3379	2677	001290	00 2		4688							
	00	4	085		0477	33792	2677				4688							
			OBS ST		0477 0477	33795 3380	2677 2677	001287	77 003		4689							
			085		0477	33797	2677	00120			4690							
			ST		0410	3417	2714	000941	2 006	1 1	4670							
			OBS		0410	34169	2714				4670							
			OBS		0672	34737	2727	000775			4786							
			5T 085	0 0075 0075	0687 0687	3483 34825	2732 2732	000775	8 008		4795 4795							
			5 T		0699	3490	2736	000740	0 010		4805							
			085	0100	0699	34900	2736	000	, , , , , ,		4805							
			ST	0 0125	0713	3498	2741	000702	0 011	9 1	4816							
			OBS		0713	34982	2741				4816							
			51		0661 0661	3497 34968	2747 2747	000646	59 013		4799 4799							
			085 ST		0582	3494	2755	000572	27 016		4776							
			QBS		0582	34942	2755	0005.1			4776							
			ST		0493	3486	2759	000536	019		4747							
			0B5		0493	34857	2759				4747							
			OBS		0465	34840	2761	000/0			4738							
			ST 0BS		0474 0474	3489 34887	2764 2764	00049	76 022		l4747 l4747							
			085		0505	34950	2765				4769							
			51		0502	3499	2769	000462	22 026		4777							
			085	0400	0502	34994	2769				14777							
			5.7		0464	3498	2772	000439	91 031		4777							
			OBS		0464 0452	34980 3500	2772 2775	000420	02 035		L4777 L4789							
			ST 085		0452	35001	2775	000420	JZ U 35		14789							
			51		0433	3500	2777	000409	97 039		4798							
			085	0700	0433	34999	2777			1	4798							
			ST		0418	3500	2778	000404	¥8 043		4808							
			085 51		0418 0395	34995 3498	2778 2779	000401	11 047		14808 14815							
			085		0395	34976	2779	00040	. 1 0 4 /		4815							
			ST		0380	3496	2780	000404	41 051		4825							
			OBS	1000	0380	34960	2780			1	4825							
			5 T		0375	3496	2780	000406	59 05 <i>6</i>		4840							
			OBS		0375	34960	2780	000/31	2.2 01.0		4840							
			ST OBS		0375 03 <b>75</b>	3496 34964	2780 2780	000412	27 060		4857 14857							
			51		0368	34964	2781	000414	7 064		14870							
			085		0368	34961	2781		554		4870							
			5 T	D 1400	0365	3497	2782	00041	57 068		4886							
			OBS		0365	34966	2782				4886							
			ST		0361	3497	2782	00041	59 072		4901							
			OBS	1500	0361	34970	2782				l4901							

SHIP		LATITU		LONG	SITUDE JAN	MARSDEN SQUARE	STATION TIN	YEAR	ORIGINAT CRUISE STA NO. NU	TION	DEPTH TO BOTTOM	DEPTH OF S'MPL	0858	WAVE RVATIONS HGT PER SE	WEA- THER CODE	CLOUD CODES			NOE STATE NUM	ÓН
B EV	1-	4407	1/10 6 N	049	1710	149 48		25 1967	+		3383	15	-	6 2	X 2	0 3			00	47
LV	1 -	4401	ON	0.40	) 1 9 0 m			IND BAR	A ID TELLS		NO.		CIAL							
						COLO	TRANS. DIR.	SPEED MET		WET CODE	OBS, DEPTHS	OBSER	ZHOITAV							
						OT	SD 31	510 21		006 6	38									
		_		Т		T		T	SPECIFIC VOLUM	E ≥ △ D DYN, M	so	UND		PO4-P	TOTAL-P	NO2-N	N03-N	5104	-5,	
MESSEN TIME	0 1 0 1	NO.	CAR TYP		DEPTH (m)	T ℃	5 */	\$1G M A ~ 1	ANOMALY-1107	x 16 <sup>3</sup>	VEL	OCITY	O 2 ml/l	νg - α1/I	µg - 01/1	μg - α1/I	μg - σt/l	µg + €	171	pН
HR 1/	10		-																	
	1		ا ج	TD	0000	0250	3351	2676	0012963	0000		584								
0	25		08		0000	0250	33505	2676	0013040	0013		584								
			08:	ΤD	0010	0255 0255	3351 33510	2676 2676	0012969	0013		588								
				> TD	0020	0255	3351	2676	0012943	0026		590								
0	03		0В		0020	0255		2676				590								
				TD	0030	0256		2676	0012940	0039		592 592								
			OB.	5 T0	0030 0050	0256 0257		2676 2676	0012934	0065		596								
			08		0050	0257		2676				596								
			0 B	S	0063	0287		2678	0011/11	0005		611								
				TD	0075 0075	0260 0260		2690 2690	0011640	0095		603								
			0B 0B		0075	0188		2708				576								
				TD	0100	0500	3430	2714	0009431	0122		717								
			0В		0100	0500		2714				+717 +787								
			0 B	S TD	0120 0125	0650 0630		2 <b>7</b> 27 <b>27</b> 28	0008160	0144		779								
			08		0125	0630		2728	00000			779								
			08		0135	0590		2729				+764								
			ОВ		0141	0732		2736	0007465	0163		+826 +801								
			5 0 B	TD	0150 0150	0670 06 <b>7</b> 0		2736 2736	000140.	, 010.		801								
			0 B		0155	0608	34752	2737				+776								
			08		0161	0650		2737				+795 4759								
			08 08		0175 0195	0560 0591		2737 2739				41776								
				TD	0200	0596		2742	000695	9 0199	14	4779								
			0.8		0200	0596		2742				4779								
			OB		0217	0599		2753				4785 4781								
			0.6	35 5TD	0240 0250	05 <b>7</b> 8		2756 2757	000562	7 023		4791								
			OE		0270	0618						4803								
				STD	0300	060		2762	000526	4 025		4805								
			OB		0300	060						4805 4765								
			08		0370 0382	048						4770								
				510	0400	048	3497	2769	000463	6 030		4769								
			Q E	35	0400	048			000443	3 035		4769 4764								
				STD	0500 0500	043		2 <b>77</b> 1 2 <b>77</b> 1	000443	2 025		4764 4764								
				3 S 5 T D	0600	043		2774	000428	1 039	6 1	4775								
				35	0600	042	0 34940	2774		,		4775								
				STD	0700	040		2775	000426	7 043		4783 4783								
				35 c T D	0700 0800	040		2775 2776	000422	9 048		4795								
				STD BS	0800	038			000.22		1	4795	>							
				BS	0865	040	2 34960	2777	00-11-	0 0 0		4812								
				STD	0900	038		2777	000418	0 052		4809								
				BS STO	0900 1000	038 038		2777	000416	0 056		4827								
				85	1000	038		2779			1	4827	7							
				STD	1100	039	0 3497	2779	000419	3 060		4846								
				B5	1100	039		2779 2780	000421	8 064		4846								
				ST0 B5	1200 1200	038			000-721		1	4860	)							
				STD	1300	037	9 3497	2781	000421	9 069		4875								
			0	85	1300	037			000131	0 073		.4875 .4890								
				STD	1400	037		2781 2781	000424	9 073		.4890 .4890								
				BS STD	1400 1500	037 036		2781	000425	8 077		4902								
				510 85	1500	036				- '		490								

ID. NO.	SHIP	LATITU		LONGITUDE	DRIFT	MARSDEN SQUARE	STATION TIL			RUISE	ATOR'S		DEPTH TO BOTTOM	MAX, DEPTH OF	OBS	WAVE ERVATIONS	0000	CODES		\$	NODC TATION
+ +	EV	***	1/10	1/10	-		MO DAY HE				NUMBER			S'MPL'S		HGT PER SE		IIITE IAM			UMBER
1 8008	EV	4405	ON	048053	()	149 48 WAI		141 1 IND	, , , ,	IIP 98	96		3658	15	29	3 2	X2	013	1	I	0048
						COLOR	TRANS. DIR	SPEED	BARO- METER	DRY	WET	VIS.	NO. 085.	SPEC OBSERV	ATIONS						
						CODE	(m)	FORCE	(mbs)	BULB	8UL8		DEPTHS	-							
_				,		DT	SD 30	510	220	022	006	7	47								
	MESSENGR TIME 0		CARD	DEPTH	(m.)	1 °C	5 %.	SIGMA	4-T SP	ECIFIC VOLL	M€ S	△ D N. M. 10 <sup>3</sup>	SOL	IND	O 2 m³/l	PO 4-P	TOTAL-P	NO2-N	NO3-N	\$104-51	
1	HP 1/10	NO.	TYPE							NOMALY-X	, x	103	VELC	CITY		μg = αt/l	μg = at/?	ا/اه - وير	μg - a1/1	μg - ot/6	рН
									l												
	0.4.		ST			0590	3403	268		001240	4 00	000		734							
	041		085 ST(	000		0590 0594	34025 3403	268 268		001243	.s n	012		734 737							
			OBS	001		0594	34029	268		701243		012		737							
			ST	002	0	0595	3403	268		001245	2 00	025		739							
			STO			0597	3404	268		001245	2 00	37		742							
	002		085 510	003		059 <b>7</b> 0605	34035 3405	268 268		201266	2 0/	2/2		742							
			085	005		0605	34050	268		001246		062		748 748							
			085	006		0500	33917	268						706							
			STO			0865	3464	269		001164	7 00	092		862							
			085	009		1125 1096	35228 3524	269		001100	, ,	1 7 1		966							
			STI OBS	010		1096	35242	269 269		001100	4 0.	121		958 958							
			OBS	010		1109	35340	270						964							
			085	011		1060	35240	270					14	948							
			STI			1015	3518	270		001012	3 0	147		932							
			085 085	012		1015 0950	35182 35060	270 271						932 908							
			085	014		0930	35020	271						903							
			ST			0940	3507	271		00979	4 0	172		907							
			085	015		0940	35068	271						907							
			0BS 0BS	015		0948 0943	35112 35112	271 271						912 911							
			085	017		0910	35110	272						901							
			085	019		0857	35019	272						882							
			STE			0782	3489	272		000882	3 04	219	148	854							
			085 085	020 021		0782 0721	34887 34775	272 2 <b>7</b> 2						854							
			085	022		0795	35030	273						830 865							
			STO			0712	3489	273		00791	0 02	260		335							
			OBS	025		0712	34888	273					148	335							
			085	025		0697	34928	273						330							
			085 085	026 028		0717 0703	35012 35002	274 274						341 338							
			STO			0592	3487	274		00654	1 04	296		795							
			085	030		0592	34868	274	8					795							
			0B5 0B5	030		0573	34870	275						789							
			085	031		0588 0542	34921 34889	275 275					14	797 781							
			OBS	036		0552	34911	275					14								
			OBS	038		0579	35028	276					148								
			085 510	039		0575 0522	35025 3495	276			1 0		148								
			085	040		0522	34950	276 276		00519	1 0-	355	147								
			085	041		0503	34955	276					14								
			OBS	042		0521	34985	276	6				147	788							
			08s 08s	043 045		0522 0458	34988 34900	276					147								
			STD			0459	3493	276		00468	9 04	05	147	766 775							
			OBS	050	0	0459	34932	276	9				147	775							
			STO			0435	3493	277		00451	4 04	•51	14								
			085 510	060 070		0435 0411	34932 3493	277 277		00436	5 04	+95	147								
			085	070		0411	34928	277		00436	J 04	770	147	788							
			STE			0395	3493	277		00425	9 05	38	14								
			085	080		0395	34930	277	6				147	798							
			STO	090 090		0383	3493	277		00424	6 05	81	148								
			085 STE			0383 0379	34925 3493	277		00422	9 06	23	148	309 324							
			OBS	100	0	0379	34933	277			-		148								
			STE	110	0	0378	3493	277	8 0	00431	2 00	66	148	341							
			085	110		0378	34932	277		00435		100	148								
			STD OBS	120 120		0380 0380	3496 34955	277		00425	> U/	09	148								
			STD			0373	3495	278		00427	6 07	751	148								
			085	130	0	0373	34952	278	0				148	372							
			STD			0366	3495	278		00428	7 07	94	148								
			QBS	140	U	0366	34950	278	U				148	386							
			\$TD	150	0	0364	3496	278	1 ^	00429	3 08	37	149								

										_					TWAV									20	
REFERENCE	SHIP	LATITU	DE	LONGITU	DE TELE	MARSDEN SQUARE	STATION TI	W.E	YEAR	CRUISE		TATION	-	DEPTH	MAX. DEPTH OF		WAVE ERVATI		THER CODE	CODES			STAT NUN	ION	
CODE NO.	CODE	-	1/10		1/10		MO DAY H	- 1		NO.	И	UMBER	-	BDIIOM	S'MPL'S		HGT PE		+	TYPE AM		-			
31800	8 EV	4402	8N	04752	20 <b>w</b>			157	1967		98'			3840	15	29	5 2		X 1	013	l	1	00	)49	
						COLOR	TRANS DIR.	SPEEC	BARG METE	R (	DRY	WET	VIS.	NO. OBS. DEPTHS	SPE DBSERV	CIAL									
						CDDE	(m) (m)	FORC			ULB	BULB	-	-											
						DT	50 30	509	5   21		28	011		35	<u> </u>							1,00			5
	MESSENGR TIME	CAST	CARC	0 0	EPTH (m)	1 10	\$ */	SIG	M A -1	SPECIFIC	ALY-X1	ME D	∆ D YN. M x 10 <sup>3</sup>	. VEL	OCITY	D2 ml/	PO.		Pg - of/I	ΝΟ2-Ν μg - at/l	NO3-N			pH	C
	HR 1/10	1		-				-				-				_	+-								T
	}	1	) 5 T	rn i	0000	1238	3524	26	572	001	333	0 0	000	14	991		1								
	0.5	7	OBS	5	0000	1238	35239	26	672				017		991										
			ST OBS	-	0010	1241 <b>1</b> 241	3525 35245		672 672	001	336	8 0	013		993										
			51	-	0020	1242	3525	2	672	001	337	7 0	027	14	996										
	00	3	OBS	-	0020	1242	35250 35270		672 673						996 997										
			0BS	-	0025	1243 1244	3528		674	00	1325	7 0	040	14	998										
			089	5	0030	1244	35275		674	0.0			0000		+998 +999										
			51		0050	1237 1237	3528 35275		675 675	00.	1317	8 (	0066		1999										
			0B9	-	0069	1234	35270	2	675					19	001										
			S1	,	0075	1200 1200	3519 35185		675 675	00	1322	20 0	0099		+989 +989										
			0B9	-	0075	1172	35220		683					14	4982										
			57	TD	0100	1284	3550		683	00	1252	21 (	)132		5026 5026										
			OBS	_	0100	1284 1293	35504 35530		683 684						5031										
			0B:	_	0117	1259	35500	2	688				. 1		5020										
				TD	0125	1257	3553 35531		691 691	00	1187	75 (	)16;		5021 5021										
			0B:	S TD	0125	1257 1161	3536		696	00	1142	28	019		4990										
			ОВ		0150	1161	35358		696						4990										
			ОВ		0180	1053 1050	35282 3528		710	0.0	101	71	024		4956 4958										
			0B	TD S	0200	1050	35279		710						4958										
				TD	0250	0892	3507		720	00	092	45	029		4906 4906										
			OB S	S TD	0250	0892 0778	35067 3502		734	00	079	43	033		4870										
			ОВ		0300	0778	35022		734						4870 4795										
			0B		0390	0556 0573			2753 2754	0.0	060	49	040		4805										
			0 B	TD S	0400	0573			2754		0	.,	-	1	4805										
			ОВ	15	0464	0557			762						4810 4819										
			08	STD	0489 0500	0570 0530			2762 2763	0.0	053	40	046		4804										
			OB		0500	0530			2763						4804										
			0 B		0525	0473			2766 2767						4784 4801										
			0B	STD	0550	0501 0489			2770	0.0	047	89	051	4 1	4804										
			OB	3.5	0600	0489	3498		2770	0.0	0 / E	2.2	056		4804										
			S OB	5 <b>T</b> D	0700	0458 0458			2773 2773	00	045	23	056		4808										
				5 T D	0800	0437	3498		2775	0.0	044	03	060		4816										
			O E		0800	0437 0427			2775 2776	0.0	043	53	064		.4816 .4828										
			O E	5 T D 3 S	0900	0427	-		2776	•	, , , ,		•	1	4828										
				STD	1000	0415	3498		2778	0.0	043	19	069		.4840 .4840										
				35	1000	0419			2778 2779	0.0	0042	:55	073		4851										
				STD BS	1100	0401	3497	8	2779					1	4851										
			9	STD	1200	0388			2780	0.0	0042	51	077		14862 14862										
				BS STD	1200 1300	0388			2780 2 <b>7</b> 80	01	0042	85	082	21 1	14875	·									
				BS	1300	037	9 3496	1	2780				0 11 -		14879										
				STD	1400	037 037			2781 2781	0	0042	82	086		14889 14889										
				BS STD	1400 1500	036	9 3496		2781	0	0043	321	090	7	14904	+									
				BS	1500				2781						14904	+									

FERENCE	SHIP	14 717	D	I ONGITURE	MARSDEN SQUARE	STATION TI				NATOR'S		DEPTH	MAX. DEPTH		WAVE SERVATIONS	WEA-	crono			NOD	
ID.	CODE	LATITU	1/10	LONGITUDE J	10. 1.	MO DAY H	R, 1/10	R CRU		STATION NUMBER		BOTTOM	OF S'MPL'S	l .	HGT PER SEA	CODE	TYPE AM			NUM	BER
18008	EV	4358	18N (	047320W	149 37		75 19	57 11		398		4023	15	31	4 2	X 2	0 3	1		00	50
					COLOR	TRANS. Dun	SPEEO A	ARO-	DRY	MP. °C	VIS.	NO. 085.	SPEC	JAI: 2 NOIT A							
					CODE	Im I	FORCE	mbs1	044	BULB	+	DEPTHS 33									
	MESSENGE				101	SD 30	505	227		022	-	4			1				1		_
	TIME HR 1/10	OF NO.	CARD TYPE	DEPTH (m)	T *C	s */	SIGMA-	SPEC	IFIC VOL	1107	∆ D YN, M X 10 <sup>3</sup>	VELC	DCITY	02 ml/l		TOTAL-P µg - 01/1	NO <sub>2</sub> —N ug - al/l	NO3-N N0 - 01/1	SI O4-		ρН
																			1	+-	_
		-	ST		1248	3526	2671	00	133	99 0	000		994		,						
	07	5	OBS ST	0000	1248 1248	35255 3526	2671 2672	0.0	133	96 0	013		994 996								
			0BS	0010	1248	35259	2672					14	996								
	00	2	STI	0020	1248 1248	3526 35260	2672	0.0	134	15 0	027		998								
	00	,	0B5		1248	35260	2672 2672	0.0	134	34 0	040		998 999								
			0BS	0030	1248	35261	2672						999								
			STI		1248	3526	2672	00	1346	55 C	067		003								
			0BS S <b>T</b> I	0050	1248 1248	35264 3527	2672 2672	٥٢	135	23 0	101		003 007								
			OBS	0075	1248	35265	2672	•					007								
			STI OBS	0100	1247 1247	3528	2673	0.0	134	57 0	135		011								
			0BS	0100	1247	35279 35290	2673 2676						011 009								
			OBS	0117	1254	35333	2676						017								
			STI		1200	3525	2680	0.0	1284	+8 C	167		998								
			0BS 0BS	0125 0139	1200 1207	35253 35349	2680 2686						998 004								
			ST		1275	3552	2686	00	123	59 0	199		031								
			OBS	0150	1275	35521	2686						031								
			0B5 STI	0170	1306 1234	35621 3551	2688 2694	0.0	1179	a 1 0	259		046 026								
			085	0200	1234	35510	2694	00	,,,,,,	,, ,	_ ,		026								
			STI		1032	3518	2705	00	107	41 C	316		959								
			0BS 5 <b>T</b> (	0250	1032 0880	35175 3504	2705 2720	0.0	093	33 C	366		959 909								
			085	0300	0880	35043	2720	٠.	, , , , ,	,, ,	- 00		909								
			OBS	0366	0770	34978	2732		07/		461		878								
			STI OBS	0400	0636 0636	3482 34820	2738 2738	U	076	12 0	451		829 829								
			OBS	0440	0503	34735	2748						780								
			OBS	0450	0596	34938	2753				E 10		822								
			STO OBS	0500	0564 0564	3496 34959	2759 2759	00	057	// 0	518		818 818								
			OBS	0540	0583	35012	2760						833								
			OBS	0585	0525	34990	2766				L = -	14	817								
			510 085	0600	0537 0537	3503 35033	2768 2768	00	0501	12 0	572		825 825								
			STO	0700	0519	3507	2773	0.0	0469	64 0	620		834								
			085	0700	0519	35067	2773					14	834								
			510 085	0800	0462 0462	3502 35018	2775 2775	00	044]	14 0	665		827 827								
			ST	0900	0421	3497	2776	0.0	0439	0 0	709		826								
			OBS	0900	0421	34967	2776	_			7.0.		826								
			STI OBS	1000	0416 0416	3499 34993	2779 2779	0.0	0423	5 0	752		841 841								
			ST		0411	3498	2778	00	0434	+3 0	795		855								
			OBS	1100	0411	34983	2778					14	855								
			STO	1200 1200	0393 0393	3497 34970	2779	0.0	0430	0 0	838		864								
			085 5 <b>1</b> 1		0381	34970	2779 2780	0.0	0429	96 N	881		864 876								
			OBS	1300	0381	34963	2780					14	876								
			STI		0372	3496	2780	0.0	0430	0 4	924		889								
			0B5 510	1400 1500	0372 0368	34958 3496	2780 2781	nn	0432	23 n	968		889 904								
			OBS	1500	0368	34960	2781			0			904								

REFERENCE   SHIP   LATITUDE   LONGITUDE   SUNDE   SULPRE   STATION TIME   VEAR   COURSE   STATION TIME   VEAR   COURSE   STATION TIME   OF SWAPE   STATION TIME   OF SWAPE   STATION TIME   OF SWAPE   OSSERVATIONS   THE STATION   OSSERVATIONS   THE SWAPE   OSSERVATIONS   OSSERVATIONS   THE SWAPE   OSSERVATIONS	- NITAARER
318008 EV 43565N 047190W 149 37 04 23 097 1967 11P 9899 4206 15 33 4 2 X2 0 3    WATER   WIND   SARD   BARD   BARD   BARD   BULB   BULB   CODE   STEVATIONS	0051
WATER   WIND   SARO-   COLOR   TANK   DIR   DI	NO3-N SIO4-SI 0H
COLOR   TRANS.   DIR   SPECIAL   DIR   West   DIR   West   DIR   West   DIR	
MISSENDE   CAST   CARD   DEPTH (m)   T 'C   S '.'.   SIGMA-T   SPECIFIC VOLUME   NO.   NO.   NO.   NO.   TYPE   DEPTH (m)   T 'C   S '.'.   SIGMA-T   SPECIFIC VOLUME   NO.	
MESSHOR CAST   CARD   TYPE   DEPTH (m)   T C   S '   SIGMA-T   SPICIFIC VOLUME   RANDMALY-RIO?   SOUND   VELOCITY   O2 m!/    PO4-P   NO3-N   NO3	
STD 0000 1272 3537 2675 0013027 0000 15004  097 OBS 0000 1272 35367 2675 15006  OBS 0010 1272 35370 2675 15006  STD 0020 1272 35370 2675 0013059 0026 15007  003 OBS 0020 1272 35370 2675 15007  008 0020 1272 35370 2675 15007  OBS 0020 1272 35370 2675 15007  OBS 0020 1272 35370 2675 15007  OBS 0020 1272 35370 2675 15007  OBS 0020 1273 35370 2675 15008  STD 0030 1273 3537 2675 0013090 0039 15009  OBS 0030 1273 3537 2675 0013090 0039 15009  STD 0050 1273 35370 2675  STD 0050 1273 35373 2675 0013137 0065 15012  OBS 0050 1273 35373 2675 0013201 0098 15017  OBS 0075 1274 3538 2675 0013201 0098 15017  OBS 0075 1274 3538 2675 0013201 0098 15017	
STD 0000 1272 3537 2675 0013027 0000 15004  097 OBS 0000 1272 35367 2675 15004  STD 0010 1272 3537 2675 0013032 0013 15006  OBS 0010 1272 3537 2675 0013032 0013 15006  STD 0020 1272 3537 2675 0013059 0026 15007  003 OBS 0020 1272 35370 2675  OBS 0025 1272 35370 2675  STD 0030 1273 35370 2675  STD 0030 1273 35370 2675  OBS 0030 1273 35372 2675  STD 0050 1273 35372 2675  STD 0050 1273 35373 2675  STD 0050 1273 35373 2675  STD 0050 1273 35373 2675  STD 0050 1273 35373 2675  STD 0050 1273 35373 2675  OBS 0050 1273 35373 2675  STD 0075 1274 3538 2675 0013201 0098 15017  OBS 0075 1274 3538 2675 0013201 0098 15017	
097 OBS 0000 1272 35367 2675 15004 STD 0010 1272 3537 2675 0013032 0013 15006 OBS 0010 1272 3537 2675 15006 STD 0020 1272 3537 2675 0013059 0026 15007  003 OBS 0020 1272 35370 2675 15007 OBS 0025 1272 35370 2675 15007 OBS 0025 1272 35370 2675 15008 STD 0030 1273 35370 2675 15008 OBS 0030 1273 35372 2675 0013090 0039 15009 OBS 0030 1273 35372 2675 15009 STD 0050 1273 35373 2675 0013137 0065 15012 OBS 0050 1273 35373 2675 0013201 0098 15017 OBS 0075 1274 3538 2675 0013201 0098 15017	, , ,
097 OBS 0000 1272 35367 2675 15004 STD 0010 1272 3537 2675 0013032 0013 15006 OBS 0010 1272 3537 2675 0013059 0026 15007 STD 0020 1272 3537 2675 0013059 0026 15007 003 OBS 0020 1272 35370 2675 15007 OBS 0025 1272 35370 2675 15007 STD 0030 1273 35370 2675 15008 STD 0030 1273 35370 2675 0013090 0039 15009 OBS 0030 1273 35372 2675 15009 STD 0050 1273 35373 2675 0013137 0065 15012 OBS 0050 1273 35373 2675 0013137 0065 15012 OBS 0050 1273 35373 2675 15012 OBS 0050 1273 35373 2675 15012 OBS 0050 1273 35373 2675 0013201 0098 15017 OBS 0075 1274 3538 2675 0013201 0098 15017	
STD 0010 1272 3537 2675 0013032 0013 15006  OBS 0010 1272 35370 2675 15006  STD 0020 1272 35370 2675 0013059 0026 15007  OBS 0020 1272 35370 2675 15007  OBS 0025 1272 35370 2675 15008  STD 0030 1273 3537 2675 0013090 0039 15009  OBS 0030 1273 3537 2675 0013090 0039 15009  STD 0050 1273 3537 2675 0013137 0065 15012  OBS 0050 1273 35373 2675 0013137 0065 15012  OBS 0050 1273 35373 2675 15012  OBS 0050 1274 3538 2675 0013201 0098 15017  OBS 0075 1274 3538 2675 0013201 0098 15017	
STD 0020 1272 35377 2675 0013059 0026 15007  003 085 0020 1272 35370 2675 15007  085 0025 1272 35370 2675 15008  STD 0030 1273 3537 2675 0013090 0039 15009  085 0030 1273 35372 2675 15009  STD 0050 1273 35372 2675 0013137 0065 15012  085 0050 1273 35373 2675 0013137 0065 15012  STD 0075 1274 3538 2675 0013201 0098 15017  085 0075 1274 3538 2675 0013201 0098 15017	
003 085 0020 1272 35370 2675 15007 085 0025 1272 35370 2675 15008  STD 0030 1273 35370 2675 0013090 0039 15009 085 0030 1273 35372 2675 15009  STD 0050 1273 35372 2675 0013137 0065 15012 085 0050 1273 35373 2675 0013137 0065 15012 085 0050 1273 35373 2675 0013201 0098 15017 085 0075 1274 3538 2675 0013201 0098 15017 085 0075 1274 35376 2675 15017	
08S 0025 1272 35370 2675 15008  STD 0030 1273 3537 2675 0013090 0039 15009  08S 0030 1273 35372 2675 15009  STD 0050 1273 3537 2675 0013137 0065 15012  08S 0050 1273 35373 2675 15012  STD 0075 1274 3538 2675 0013201 0098 15017  08S 0075 1274 35376 2675 15017	
OBS 0030 1273 35372 2675 15009 STD 0050 1273 35373 2675 0013137 0065 15012 OBS 0050 1273 35373 2675 15012 STD 0075 1274 3538 2675 0013201 0098 15017 OBS 0075 1274 35376 2675 15017	
STD 0050 1273 3537 2675 0013137 0065 15012  OBS 0050 1273 35373 2675 15012  STD 0075 1274 3538 2675 0013201 0098 15017  OBS 0075 1274 35376 2675 15017	
OBS 0050 1273 35373 2675 15012 STD 0075 1274 3538 2675 0013201 0098 15017 OBS 0075 1274 35376 2675 15017	
STD 0075 1274 3538 2675 0013201 0098 15017 0BS 0075 1274 35376 2675 15017	
000 000 0000 0000 0121 16022	
STD 0100 1276 3539 2676 0013240 0131 15022 085 0100 1276 35385 2676 15022	
OBS 0113 1289 35425 2676 15029	
STD 0125 1218 3531 2681 0012763 0164 15005	
OBS 0125 1218 35310 2681 15005 OBS 0140 1294 35521 2683 15036	
OBS 0140 1294 35521 2683 15036 STD 0150 1290 3552 2684 0012640 0196 15036	
OBS 0150 1290 35522 2684 15036	
STD 0200 1276 3553 2687 0012446 0258 15040	
085 0200 1210 3500 2001	
STD 0250 1116 3532 2701 0011157 0317 14990 OBS 0250 1116 35318 2701 14990	
OBS 0264 1096 35354 2708 14986	
OBS 0272 1096 35354 2708 14987 STD 0300 1014 3519 2710 0010436 0371 14961	
STD 0300 1014 3519 2710 0010436 0371 14961 OBS 0300 1014 35190 2710 14961	
OBS 0330 0956 35160 2717 14944	
OBS 0339 0967 35218 2720 14950	
STD 0400 0838 3502 2725 0009048 0469 14910 085 0400 0838 35019 2725 14910	
0BS 0400 0838 35019 2725 14910 0BS 0420 0726 34970 2738 14869	
085 0425 0744 35005 2738 14878	
STD 0500 0630 3500 2753 0006358 0546 14845	
OBS 0500 0630 34998 2753 14845 OBS 0520 0610 35018 2757 14841	
OBS 0523 0627 35050 2758 14848	
STD 0600 0566 3502 2763 0005483 0605 14836	
085 0600 0566 35020 2763 14836 085 0660 0550 35029 2766 14840	
OBS 0670 0530 35028 2768 14833	
STD 0700 0530 3505 2770 0004936 0657 14839	
085 0700 0530 35048 2770 14839 085 0762 0501 35047 2773 14837	
0BS 0762 0501 35047 2773 14437 0BS 0768 0508 35057 2773 14841	
STD 0800 0503 3506 2774 0004606 0705 14844	
OBS 0800 0503 35062 2774 14844	
STD 0900 0458 3503 2777 0004390 0750 14842 OBS 0900 0458 35029 2777 14842	
085 0922 0463 35040 2777 14848	
STD 1000 0450 3503 2778 0004373 0794 14855	
OBS 1000 0450 35032 2778 14855 STD 1100 0429 3502 2779 0004312 0837 14863	
ORS 1100 0429 35018 2779 14863	
STD 1200 0412 3501 2780 0004252 0880 14873	
OBS 1200 0412 35010 2780 14873	
310 1300 0400 3300 1000 1000 1000	
STD 1400 0395 3500 2781 0004292 0965 14899	
OBS 1400 0395 35000 2781 14899	
STD 1500 0390 3501 2783 0004250 1008 14914	
08S 1500 0390 35009 2783 14914	

REFERENCE CTPY ID. CODE NO.	SHIP	LATIT	υDΕ 1/10	LON	vGITUD '1	DRIFE TNDC18	MAR: 50U			TION (GMT	TIME ) HR.1/10	YEAR	CRUIS NO.		ATOR'S TATION NUMBER		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	l	SERV	VE ATIO	WEA- THER CODE	CC	OUD DDES		12	NODC IATION UMBER
31800	a Ev	441	9 N	04	920	w	149	49	04	24	174	1967	111	P 99	00		0048	00	26	6	2	x1	0	3			0052
									TER		WINO	BARC	)- <del> </del>	AIR TE	MP. °C	vis.	NO.	SPEC	IA1	1							V U 1
								COLOR	tran:	i. DIR	SPEED OR FORCE	M ETE		DRY BULB	81 PB	COD	OBS. DEPTHS	OBSERV.									
								DT	SE	24	_	09	1 (	056	050	7	05			1							
	MESSENG TIME HR 1/11	CAST NO.	CA TY		DEP	TH (m)	1	°C	2	٠/	SIGA	4A-T	SPECIF	C VOLU	07 D	Δ D N. M 103	. SOL	IND	O2 ml/		PO 4 = 1	01A L - P /g = si/l	NO <sub>2</sub>		NO3-N μg - at/l	\$1 O4-51 ug = o1/1	рН
		!		TD.	_	000		226		88	26		00	1749	 3 0	000		565									
	17	4	08	S		000 010		226		883 88	26 26		0.0	1745		017		565									
			08	S	0	010	0	221	32	883			00.	1743	9 0	01/		565 565									
	00	1	S 0B	TO		020 025		211 206		99	26 26		00	1660	0 0	035		563 563									
		•	S	TD	0	030		342	-	65	26		00	1265	8 0	049		631									
			0 B			030 040		342 348		650								631 635									

REFERENCE	SHIP				- 8	MAR		STATION			-	DRIGINA	A TOR'S		DEPTH	MAX.	.	WAVE	WEA	CLOUE		i	NODC	
CTRY ID.	COOF	LATITUE		LONGITUDE	10 3	sou	ARE	IGMI		YEAR	CRUISE		TATION		BOTTON	. OF	000	ERVA TIONS	THER	CODE			UMBER	
CODE NO.	-		1/10	• '1/	10	10*	1*	MO DAY	HR.1/10		NO.	N	UMBER		101101	S'MPL"	S DIR.	HGT PER SE	A COO.	TYPE AN	17	- "	OWNER	
31/8008	Ev	4416	N	04906	W	149	49	04 24	184	1967	IIP	99(	01	į	0348	03	22	6 2	l xo	103			0053	
							WA	TER	WINO	BAR	0	IR TEN	4 P. ℃	vis.	NO.		CIAL							
							COLOR	TRANS. OIR	SPEED OR	MET	ER (	PRY	WET	CODE	OBS. DEPTHS	OBCCRI	ATIONS							
							CODE	(m)	FORC			ULB	80F8	_		<u> </u>								
							DT	SD 22	518	10	8 0	67	056	7	23									
	WESSENG	RICAST	CAR	D		Τ.		T			SPECIFIC	VOLUE	ue E	Δρ	so	UND		PO4-P	TOTAL-P	NO2-N	NO3-N	\$104-5		5
	TIME HR 1/10		TYP		H (m)	- '	*C	s ·/	zic	MA-T	ANDM	ALY-XIC	7 DY	N, M		OCITY	02 ml/l	µg = 01/1	μg = σ1/l	μg - at/l	yg - ol/l	yg - at/l	pΗ	C
	17.10					+-			+						+							-		+
		1	S1	n0	00		013	3299	26	52	001	526	3 N	000	14	459		ļ		ŀ	]	1	1	1.1
	18	4	085		00		013	3299		52	001	J 2 0	, ,,	000		459								
		•		-	10		018	3299		52	001	526	1 00	015		458								
			0В;		10		018	32990		52	001	220	1 0.			458								
			5		20		021	3299		52	001	524	5 00	031		459								
	00	1	OB;		20		021	32990		52			-			459								
		-	OB:		25		026	32999		53						457								
			5	TD OC	30	-0	035	3301		54	001	501	5 00	046		454								
			0B;	s 00	30	- C	035	33012	2 2 6	54					14	454								
			S.	TO 00	50	-c	050	3307	26	59	001	449	5 0	075	14	451								
			OB:		50	-0	050	3307	26	59					14	451								
			0B		65	- C	089	33260	26	76					14	438								
					75	- C	078	3332	26	81	001	247	3 0	109	14	446								
			OB:		75		078	33320		81						446								
					00		1056	3340		86	001	193	6 0	139		461								
			OBS		00		056	33400		86						461								
					25		027	3354		96	001	097	0 0	168		481								
			0В:		25		027	33547		96						481								
			_		50		021	3366		04	001	029	6 0	195		509								
			OB:	_	50		021	3366		04						509								
			0B:		80 96		169	34051 34721		26						586								
					00		650 651	3474		29 30	000	910	2 0	241		799 801								
			08:		00		651	3474		30	000	810	2 0	- <b>4</b> I		801								
			OB:		10		652	34760		32						803								
			0В:		32		430	34585	_	45						714								
			0В:		45		1429	3459		46						716								
					50		1405	3462		50	000	616	3 0	276		707								
			OB:		55		1393	34640		53						703								
			OB:		68		1422	34683		153						718								
			OB:	s 02	83	C	419	34620	27	49					14	718								
			OB:	s 02	90	C	370	3464	27	56					14	699								
			S	TD 03	00	C	369	3466	27	57	000	554	4 0	306	14	700								
			0В;	s 03	00	0	369	34659	27	57					14	700								
			0 B	s 0.3	25	C	355	34666	27	59					14	699								

ERENCE	SHIP	LATITU	DE I	ONGITUDE	15 91	MARSDEN SQUARE	STATION TIP	WE	YEAR	CRUISE	RIGINAT	TION		DEPTH TO DITOM	MAX. DEPTH OF	D85	WAVE ERVATIONS	WEA- THER CODE	CLOUD		S.T.	IODC ATION JMBER
ID. NO.	CODE		1/10	* 1/10	4-+		MO DAY HE			NO.	_	MBER			2,W br.2		HGT PER SE	`	TYPE AMI	-		005
18008	ΕV	4414	N (	)4854 W	1				1967	1				829	15	22	5 2	X0	0 3	1	(	JU 5
						COLOR		SPEED	BARO		R TEMP	WET	VIS.	ND. 085.	SPEC	IAL ATIONS						
						CODE	trans. Dir.	FORCE	lmbs		)L8	BUL8		DEPTHS	Costan							
						DT	SD 22	\$16	11	9 0	50	039	7	34	L						-	
	MESSENGR	7242	CARD			t "c	s '/	SIGN			VOLUM	£   ₹	∆ D. N. M.	sou	DND	02 ml/l	PO4-P	TOTAL-P	N03-N	NO3-N	12-40-12	pł
	MESSENGR TIME HR 1/10	NO.	TYPE	DEPTH	(m)	1 0	3 7	310%	\^-ı	ANOMA	4LY-X10 <sup>2</sup>	X	103	VELC	OCITY		μg = q1/1	µg = 01/1	и <b>д - 01/</b> 1	µg = 01/1	μg - σ1/1	
	FIX 1710	1																				
	I	1	ST	ססס ' ס	00 '	0069	3324	26	67	001	3806	01	000		500							
	19	7	OBS	000		0069	33236	26		001	3789		014		500							
			ST OBS	0 001 001		0066 0066	3324 33236	26 26		001	2107	0	014		500							
			ST			0046	3328	26		001	3347	0	027	14	493							
	00	4	OBS	00		0046	33280	26							493							
			OBS			0046	33332	26		001	2042		040		495							
			ST 085			0046 0046	3345 33451	26 26		001	2042		<b>3</b> + 0		497							
			ST			0084	3360	26	95	001	1119	0	063		520							
			085	00!		0084	33600	26		000	0644		000		520							
			ST			0074 0074	3380 33800	27 27		000	9540	, 0	089		522							
			08s ST			0074	3390		19	000	8896	0	112	14	536							
			085	01	00	0093	33900	27					1		536							
			ST			0150	3406 34062		28 28	000	18048	3 0	133		+568 +568							
			0BS S <b>T</b>			0150 0190	3418		34	000	7456	. 0	153		1592							
			085			0190	34180		34						+592							
			085	01		0335	34475		46				107		1663							
			ST			0327 0327	3450 34500		48	000	624	3 (	187		4664 4664							
			0BS			0318	34570		55						4666							
			ST			0340	3464	27	158	000	)537	в с	216		4679							
			085	0.2		0340	34637		58	000	518		242		4679 4712							
			ST 0B5		00 00	0393 0393	3474 34740		761 761	000	اعدر	,	- 42		4712							
			083		05	0380	34740		762						4707							
			089	03	20	0416	34795		763						4725							
			089			0410	34840 34945		167 167						4727 4763							
			0B3		00	0482 0475	3495		768	000	0466	8 (	1292		4765							
			089		00	0475	34945	2	768						4765							
			51	D 05	00	0442	3494		772	000	0441	7 (	337		4768 4768							
			0B3		00	0442 0422	34942 3494		772 774	000	0429	7 (	381		4776							
			0B5		00	0422			774					1	4776							
			SI	rD 07	00	0406			775	000	0421	0 (	)423		4786							
			0B:	-	00	0406 0391			775 777	004	0413	0 (	0465		4786 4796							
			S1 0B3	-	00	0391			777	001		, ,			4796							
				TD 09	00	0388	3494	2	777	00	0417	9 (	0506	5 1	4812							
			0В:	-	000	0388			777	0.0	0412	в .	0548		4812 4828							
			S 08.		000	0386 0386			779 779	00	U-12	u '	J - 7 (		4828							
					100	0379	3496	2	780	00	0411	8	0589	9 1	4841							
			08	s 11	100	0379			780	_	0.4		067		4841							
					200	0374			780 780	00	0414	4	0630		4856 4856							
			0B		200 300	0374 0372			781	00	0419	7	067	2 1	4872							
			0B	s 13	300	0372	3496	1 2	781						4872							
			OВ	s 1	325	0379			781						.4879 .4883							
			0B 08	-	345 350	0380			781 781						4880							
				_	400	0370	3497	2	781	00	0419	1	071		4888							
			οв	s 1	400	0370	3497		781			,	^7£		4888							
			S	TD 1	500	0368 0368			782 782	00	0426	4	075		4904							

ERENCE SHIP		LONGITUDE E	MARSOEN SQUARE	STATION TI		YEAR		OTAN		OEPTH TO	MAX. OEPTH	089	WAVE ERVATIONS	WEA-	CLOUG			NOOC
E NO. COOE	1/10	LONGITUDE 1	10, 1,	MO DAY H		TEAR	NO.	NUM		BOTTOM	OF S'MPL'S		HGT PER SE	0000	TYPE AM			NUMBER
18008 EV 44	11 N	04840 W	149 48	04 24 2	215 1	967	IIP 9	903		3109	15	19	5 2	X 2	03			0055
			WA		ONIN	BARO	• –	EMP.	VIS.	NO.	SPEC	IAL						
			COLOR	TRANS. OIR.	SPEED OR FORCE	METER (mbs)		BU	ET CODE	DEPTHS	OBSERV	ATIONS						
			0.1	SO 18	518	112	2 044	0	39 6	26								
MESSENGR CAS	T CARC	OEPTH (m)	1 °C	5 %.	SIGM		SPECIFIC VO	LUME	₹ △ D OYN, M	sor	JND	O 2 ml/1	PO 4-P	fOTAL-P	NO2-N	NO3-N	5104-5	
TIME OF NO	. TYPE	GEVIA (m)	, ,	,	SIGM.	A-1	ANOMALY-	X107	x 10 <sup>3</sup>	. A\$FC	CITY	O 2 mi21	μ <b>g ·</b> σΙ/Ι	μg • α1/1	ا/اه - ولا	µg - a1/1	ug - a1/	
	ST		0063	3323	266		00138	35	0000		497							
215	08S ST		0063 0129	33228 3331	266 266		00136	0.0	0014		497 530							
	085		0129	33308	266		00136	0 9	0014		530							
	ST		0139	3334	267		00134	23	0027		536							
004	OBS		0139	33341	267						536							
	OBS		0149	33389	267		0013:	3.0	0010		542							
	ST 085		0260 0260	3356 33560	267 267		00126	34	0040		594 594							
	ST		0358	3405	271		00097	90	0063		646							
	085	0050	0358	34052	271	.0				14	646							
	ST		0390	3442	273		00073	72	0084		669							
	0BS		0390 0578	34417 34725	273 273	-					669 753							
	ST		0460	3463	274		00065	21	0102		705							
	089		0460	34630	274						705							
	ST		0567	3483	274		00062	77	0118		756							
	085		0567 0610	34830 3490	274		00062	0.7	0133		756 778							
	ST 085		0610	34903	274		00002	91	0133		778							
	51	D 0200	0445	3473	275	4	00057	16	0163	14	717							
	089		0445	34730	275						717							
	ST		0388	3473 34730	276		00051	62	0190		701							
	089 ST		0388 0484	34730	276 276		00049	93	0216		701 <b>7</b> 52							
	089		0484	34900	276						752							
	S1		0487	3498	276		00045	86	0264		770							
	089		0487	34975	276		00013		0300		770							
	ST OBS		0455 0455	3498 34976	2 <b>7</b> 7		00043	15	0308		774 774							
	\$1		0440	3498	277	-	00042	16	0351		784							
	089		0440	34980	277						784							
	S1		0430	3499	277		00041	28	0393		797							
	089 S1		0430 0422	34990 3500	277		00040	13.7	0433		797 810							
	0B3		0422	35003			00040	101	0433		810							
	S1		0408	3499	27		00040	133	0474		821							
	089		0408	34994	277						821							
	51 0 <b>8</b> 5		0397 0397	3499 34991	278 278		00040	17	0514		833							
	S1		0397	34991	278		00040	143	0554		844							
	089		0385	34980						14	844							
	S1		0374	3498	278		00040	19	0599		856							
	089		0374	34977	278		00040	1 / E	0639		856							
	083	TU 1300 5 1300	0368 0368	3498 34975	278		00040	47	0639		871 871							
	\$1	-	0362	34910	278		00040	146	0679		885							
	085	5 1400	0362	34976	278	3 3				14	885							
	S1		0360	3498	278		00040	88	0716		901							
	083	5 1500	0360	34978	278	3				14	901							

	SHIP	LATIT	U DE	LON	ORITHOR SOUTH	M A SQ	RSDEN UARE	TATE	ON TIME	YE	AR C	RUISE	NATO STAT	TION		TO	MAX. DEPTH OF			TIONS	WEA- THER CODE	CLOUD			NODC STATION NUMBER
(	ODE	•	1/10		1/10 ° Z	10.	7,	мо о	AY HR.1/	10		NO.	NUA	MBER	-	MOTIC	S'MPL"			PER SEA	<del>  -</del> -	TYPE A.M			
Г	E۷	440	9 N	04	826 W	14		_	24 23		67		904			292	15	22	5	2	X 2	1 0 3		Ì	0056
							WAT		WIN		BARO-	DRY	EMP.		715.	NO. 085.	SPE	CIAL /ATIONS							
							COLOR	TRANS.	DIR. I		(mbs)	BULB		ULB	ODE	EPTHS	OBSERV	A 110.13							
							DT	SD	22 S	18	139	072		067	6	37									
,	AESSENGR	CAST	T	ARO		T			./	SIGMA-	, ,	PECIFIC VO	LUME	₹ ∆ OYN	D.	501	DND	02 ml/l			OTAL-P	NO2-N	NO3-N	SI O4-	
ŀ	TIME 0	NO.	Ť	YPE	OEPTH (m)		ī °C	,	7.	JIGMA.	·	ANOMALY-	x107	X	03	VEL	DCITY		10	- 01/1	μg = ct/l	μg - et/l	µg - at/i	yg - al	
•	1K 1710		+			1																			1
			1	STD	0000		0567	33	88	2673	3	00132	05	00	00		723								
	230	)		BS	0000		0567	33	882	2673		00132		00	12		723								
				STD	0010		0565 0565	_	880	2673		00132	. 0 7	00	10		723								
	003	ı		B S	0018		0565		880	2673							725								
	003			STD	0020		0595	33		2676		00129	76	00	26		738								
			0	BS	0020		0595	33 34	960	2676 2681		00125	553	0.0	39		738								
			0	STD BS	0030		0680 0680		160	268		0012	,,,	00	,		777								
				STD	0050		0936	34		2684		00122	81	0.0	64		885								
				BS	0050		0936		695	2684							885 845								
				BS BS	0058		0826		680 840	270							878								
			U	STD	0075		0877	34	85	270		0010	273	00	92	14	869								
			С	Bs	0075		0877		850	270				. 1			+869								
				STD	0100		0931		01 010	271		0009	115	01	17		+895 +895								
			C	BS STD	0100 0125		0931		72	271		0009	200	01	41		4819								
			c	BS	0125		0730		720	271							4819								
			·	STD	0150		0410		22	271		0009	097	0 1	64		+687								
				BS	0150		0410		223	271							4687 4635								
				)85 )85	0160 0190		0281 0654		350 885	274							4802								
				STD	0200		0602		79	274		0007	109	0.2	05		4782								
			(	BS	0200		0602		790	274							4782 4721								
				OBS	0210		0453		700 975	275 275							4793								
				0BS 0BS	0218 0225		0616 0575		920	275							4777								
				DBS	0230		0600		960	275							4788								
				OBS	0240		0567		913	275			7.0				4776								
				STD	0250		0575 0575		94 935	275 275		0005	160	0.	237		4781 4781								
				OBS OBS	0250 0295		0549		1990	276							4779								
			`	STD	0300		0561		502	276		0005	021	L 0-	64		4785								
				oBs.	0300		0561		020	276							4785 4783								
				OBS	0325		0548 0560		5010 5030	276 276							4791								
			(	0B5 ST0	0400		0485		+97	276		0004	636	5 0	312	1	4769								
				oBs	0400		0485	34	965	276	9		0		3		4769								
				STD	0500		0451		496	277		0004	38	/ 0	357		4772 4772								
				OBS stn	0500 0600		0451		4960 497	277		0004	104	4 0	400		4777								
				STD OBS	0600		0424		4970	277		•				1	4777								
				STD	0700		0400	3	495	277		0004	074	4 0	441		4784								
				OBS	0700		0400		4950 495	277 2 <b>7</b> 7		0004	099	9 0	482		4784 4798								
				STD OBS	0800 0800		0394		4950	277		0007		. •			4798								
				STD	0900		0384	_	495	277		0004	05	8 0	522		4810								
				oBs	0900		0384		4952	277			0.5	, .	6		4810								
				STD			0379		496	278		0004	05	1 0	563		.4825 .4825								
				OBS STD	1000		0379		4957 499	278		0003	99	6 0	603		4846								
				OBS	1100		0389		4993	278						1	4846	>							
				STD	1200	)	0374	3	497	278		0004	05	5 0	643		4856								
				OBS	1200		0374		4972	278		0004	.07	9 n	684		4856 4871								
				OBS	1300 1300		0369		497 4972	27		000		, ,			487								
				STE			0363		497	27		000	804	8 0	72		4885								
				OBS	1400	)	0363	3 3	4972	27		0004	. 1.	_ ^	766		L4885 L4907								
				STD	1500		0361		497	27															

																				,				,
CTRY 1D. CODE	LATITUE	DE	LONGITU		MARSDEN SOUARE	1	ON TIA		YEAR	CRUISE	5	TATION	$\dashv$	TO	DE	MAX, EPTH OF	OBSE	WAVE RVATIONS	WEA- THER CODE	CODES			NODC STATION NUMBER	
318008 EV	4406	1/10 N	04813	17 10	10° 1°	04			1967	NO.	99i	O S	-	332	- 1	MPL'S -		5 2	XO	O 3			0057	┨
1 210000 24 1	1100		0 401.		WA			IN D	BARO	. A	R TEA	AP. ℃	vis.	NO.		SPECIA		7   -	1 20	1 013	l	- 1	000	1
					COLOR	TRANS.	DIR.	SPEED OR FORCE	METER (mbs)			W E T BULB	CODE	OBS	HS OB	SERVA	TIONS							
					0.1	SD	25	515	152	2 07	72	067	7	38										
MESSENGE TIME	of NO.	CAR	D 06	PTH (m)	ĭ *c	2	٠/	SIGA	1-AA	SPECIFIC ANOMA	VOLU:	M.ξ δΥ	∆ 0 N, M 10 <sup>3</sup>	. V	ELOCIT		2 ml/l	PO 4-P pg - ot/1	TOTAL-P μg = σ1/l	NO2-N :	NO3~N µg - a1/l	\$1 O4 - 9	pH	S
HR 1/10						+							10-	+		+							+	+
1		\$1		0000	0898	344		26		0013	339	4 0	000		485			,						•
00	כ	0B9		0000 0010	0898 0898	344		26 26		0013	341	4 0	013		.485 .486									
		OBS	-	0010	0898 0901	344	•52 •6	26 26		0013	343	4 0	027		486									
00	3	0B	5 (	020	0901	34	¥58	26	71		-			1	486	4								
		S1 0B5		0030 0030	0907 0907	345 345	660	26 26		0012	279	0 0	040		.486 .486									
		0B	5 (	0045	1130		060	26	79	001	777	1 0		1	495	8								
		0B		0050 0050	1125 1125	35) 35)	060	26 26	-	0017	213	1 0	065		.495 .495									
		08:		0063 0075	1113 1140	350 35	050	26 26		0012	254	1 0	097		495 496									
		0 B	5 (	0075	1140	35	130	26	82					1	496	8								
		0B		0100	0953 0953	344	32 322	26 26		001	171	4 V	127		.490 .490									
		0B	5 (	0115	1069	35	193	27	00	001		7 0	1	1	495	50								
		08		0125 0125	1022 1022	35. 35.	200	27 27		0010	110	7 0	155		493 493									
		0B3	5 (	0139 0148	1009 1032		220 240	27 27							493									
			ro (	0150	1013	35.	23	27		0009	979	2 0	180	1	493	36								
		089		0150 0200	1013 0809	35. 34	230	27 27		0000	85.8	8 0	<b>425</b>		1493 1486									
		OB:	5 (	0050	0809	34	972	27	26	000.				1	486	5								
		0B:		0209 0229	0825 0772		058 040	27 27							1487 1485									
		0B	s (	232	0797	35	080	27	36		<b>.</b>			1	486	57								
		S OB		0250 0250	0767 0767	35	040 040	27 27		000	756	1 0	266		1485 1485									
		S.		0300	0649 0649	34	97 9 <b>7</b> 2	27 27		0000	551	0 0	301		1481 1481									
		0B;	_	0330	0562		885	27							478									
		OB:		0355 0385	0570 0515		940 940	27 27							L479 L477									
		S	TD (	0400	0538	35	00	27	65	000	505	3 0	359	1	1479	91								
		0B:		0400 0421	0538 0537		995 010	27 27							1479 1479									
		0B	s (	0459	0554	35	040	27	66					1	480	8 3								
		0 <del>8</del> :		0490 0500	0469 0483	34	950 99	27 27		000	455	7 0	407		1477 1478									
		0B	s (	0500	0483	34	988	27	71	000				1	1478	95								
		0 B		0600 0600	0462 0462	34 34	99 990	27 27		000	+40	<i>5</i> 0	452		L479 L479									
		OB.		0700 0700	0437 0437	34 34	98 978	27 27	75 75	000	430	0 0	495		L479 L479									
		S	TD (	0800	0432	35	00	27	77	000	418	0 0	538	1	481	14								
		08		0800 0900	0432 0396	35 34	000 97	27	77 78	000	410	4 0	579		l481 l481									
		08	s i	0900	0396	34	965	27	78					1	1481	15								
		\$ 08.		1000 1000	0380 0380		96 955	27 27	79 79	000	407	8 0	620		1482 1482									
		S	TD	1100	0379	34	97	27	80	000	405	9 0	661	. 1	1484	42								
		0B.		1100 1200	0379 0375		968 97		80 81	000	411	9 0	701		1484 1485									
		08	S	1200 1300	0375 0372		965	27	81 82	000			743	1	1485 1487	57								
		0B	S	1300	0372	34	975	27	82	000	707			1	1487	72								
		S OB		1400 1400	0363 0363	34	96 963		82 82	000	415	4 0	784		1488 1488									
		S	TD	1500	0363	34	97	27	82	000	418	5 0	825	5 ]	1490	02								
		ОВ	\$	1500	0363	34	970	27	82					1	1490	02								

REFERENCE		_			MARSDEN	STATION TIM	E	ORIGINAT	OR'S	OEPTH	MAX. DEPTH	085	WAVE	WEA			1 5 7	NODC
CTRY IO.	CODE	LATITU	l l	GITUOE	SQUARE	IGMTI	YEAR	CRUISE STA	TION	BOTTON	1 05		HGT PER SE	_ con		7	N	UMBER
ODE NO.	0001	<u> </u>	1/10	1710		MO DAY HR.		1		3 4 5 9		22	5 2	x1				0058
318008	EV	4404	N 04	759 W	149 47 WAT	04 25 0		A ID TE MAP		3658 NO.	1	-	12121	1 ^ 1	0.5			
							SPEED MET	ER ORY	WET COD	OBS.	SPEC	ATIONS:						
					CODE	SIC SHART	FORCE (mb	al BULB	BULB	OEPTHS	<u> </u>							
					DT	50 25	S16   15	9 089	078 6	36	1		L,				ı——	
		T			T			SPECIFIC VOLUM	₹ A D	sc	ONUC	O 2 mi/l	PO4-P	TOTAL-	P NO2-N	NO3-N	SIO4-SI	ρН
	MESSENGE TIME	I CAST	CARD	OEPTH (m)	1 %	s ./	SIGMA-T	ANOMALY-X107	₹ △ D DYN. A x 10 <sup>3</sup>	. VEI	LOCITY	01	yg = at/1	μg - a!/	t ug - at/l	yg - 01/1	µg + 01/1	
	HR 1/10	-				-								ļ			ļ	
		1		0000	1097	3491	2673	0013237	0000	o 14	4938							
	0.3	2	5TD 085	0000	1097	34909	2673				4938							
	02	2	STD	0010	1097	3491	2673	0013261	001		4939							
			085	0010	1097	34909	2673	2013304	002		4939 4941							
			STO	0020	1098	3491	2673	0013294	002		4941							
	00	4	OBS	0020	1098 1098	34910 34910	2673 2673				4942							
			OBS	0025 0030	1098	3491	2673	0013318	004	0 1	4943							
			ST0 085	0030	1098	34910	2673				4943							
			510	0050	1105	3495	2675	0013192	006		4949							
			OBS	0050	1105	34950	2675				4949							
			ST0	0075	1180	3522	2682	0012598	3 009		4983 4983							
			OBS	0075	1180	35220 3532	2682 2683	0012495	013		4998 4998							
			STO	0100	1209 1209	35315	2683	001249.	, 0.,		4998							
			085	0100 0125	1202	3534	2686	001228	3 016	1 1	5000							
			ST0 0BS	0125	1202	35335	2686				5000							
			085	0138	1160	35330	2694				4988							
			STD	0150	1190	3541	2694	001161	2 019		5001							
			OBS	0150	1190	35405	2694	000960	5 024		5001							
			ST0	0200	1015	3528	2716 2716	000960	0 0 2 4		4946							
			085	0200	1015 0851	35275 35050	2725				4887							
			085 085	0232 0242	0900	35150	2726			1	4909							
			STO		0890	3514	2726	000871	2 029		4906							
			085	0250	0890	35135	2726				l 4906 l 4872							
			OBS	0270	0794	35050					14879							
			085	0278	0808	35079 3507	2734 2739	000750	0 033		4869							
			STO	0300	0 <b>77</b> 2 0772	35070	2739	000,20	0 0	-	14869							
			08s 08s	0339	0721	34970	2739				14854							
			085	0358	0582	34880	2750				4801							
			OBS	0370	0607		2751	222502	0 03/		l4813 l4799							
			STO		0559	3492	2756	000590	9 039		L4199 L4799							
			085	0400	0559	34915 3501	2756 2765	000519	5 04		14812							
			STO	0500	0548 0548			550-17			14812							
			08S 0BS	0510	0535						14808							
			085	0525	0563		2766				14823							
			085	0560	0465			40			14787							
			ST		0494		2770	000475	4 05		14807 14807							
			085	0600	0494		2770 2775	000432	9 05		14806							
			ST	0700	0453			000772	. , , ,		14806							
			08S STI		0429		2776	000425	4 00		14813							
			085	0800	0429						14813							
			ST		0428	3501	2778	000419	95 06		14829							
			085	0900	0428		_	000/11	50 05		14829 14837							
			S.T.		0408		2779	00041	ەن بور		1483							
			OBS				27 <b>7</b> 9 2780		39 07		14848							
			ST								14848							
			0B5 5 <b>T</b>	_			2781		20 07		1486							
			085								1486							
			51			5 3498	2782	00041	23 07	99	14874							
			085	1300	037				E 0 0 1	V. 0	14874							
			ST	D 1400	037	2 3498	2782		20 Q6	40	T-400							
											1488	Q.						
			085	1400	037				76 OF	8.2	1488							
				1400 D 1500	037	8 3498	2782	00041	76 08	82	1488 1490 1490	4						

REFERENCI	SHIP	LATITU	JDE 1/10	LONGITUDE	DRIFT	MARS SOU		STA	TION		YEAR			STATION	N.	DÉPTH TO BOTTOM	MAX. DEPTH DF S'MPL"		WAV SERVA	TION	WEA- THER CDDE	CC	DUD		51	NDDC TATION UMBER	
31800		4418		04924 W	-	149	49	04	25	160	196	+		07		0053	1-	23		2	 Х6	0	T			0059	
							WA	TER	$\top$	WIND	- 8A	RO»	AIR TE	MP. 1		NO.	C DE	CIAL	ľ								
							COLOR CODE	1RAN tm1	S. DIR.	SPEEC OR FORC	ME	TER	DRY BULB	W E		OBS. DEPTHS	OBSERV										
							OΤ	SI	12	530	0	17	061	0 9	6 3	06											
	MESSENG TIME	R CAST	CAR		(m)	ī	*C		s ·4.	SIG	MA-I		ECIFIC VOLU		₹ △ D DYN. W x 10 <sup>3</sup>		OCITY	02 ml/		04-8	OTAL-P 01/10 + Qu	NO:		NO3-N µg - at/1	\$104 <b>-\$</b> 1 pg - ol/l		s C
								1				T					1										П
	,		` S	TD 000	0	0	236	3.	286	26	25	-	001775	6	0000	14	569										
	16	0	OB:				236		2858		25						569										
				TO 001			234		290		529	1	001743	3	0018		570										
			0B:				234		2899		529			_			570										
				TD 002			228	-	320		553	-	001511	. 2	0034		574										
	0.0	1	0B:				228		3200		553						574										
			0B:				207		3360		68		2012/3		0010		567										
				TO 003			216		339		69		001362	4	0048		572										
			0B:	-			216 227		3385 3409	_	569 570						572										

REFERENCE	SHIP	LATITU	10.5	FONGILINGE PACE	MARS	DEN	STATION TI		YEAR			ATDR'S		DEPTH	MAX		WAVE ERVATIONS	W E A				NODC	1
CODE NO.	CODE		1/10	LONGITUDE 1/10	10*		MO DAY H		ICAR	CRUISE NO.		TATIO		BOTTOM	S'MPL		HGT PER SI	CODS				STATION NUMBER	1
31800	8 EV	4416	-	04911 W	149				967	LIP	99	08		0265	03		6 2	Х4	0 3			0060	1
				,	· [	WAT	ER V	VIND	BARG		AIR TE	MP. °C		NO.	(2)	CIAL	1-1-1				,	0000	,
						COLOR CODE	TRANS. DIR.	SPEED OR FORCE	M ET I	R C	ORY ULB	WET		OBS. DEPTHS	000000	/ATIONS							
						DT	SD 16	S35	01	4 0	78	07	8 1	20									
	MESSENG TIME HR 1/1	OF NO.	C ARE		ī	°c	s */.	SIGM	A - T	SPECIFIC	VOLU ALT-X1	M E 0 7	₹ △ D DYN. M x 10 <sup>3</sup>	. VELO	DCITY	0 2 ml/l	PO4-P vg - 01/I	101AL-P µg - 01/1		NO3=N pg - al/l	\$1 0 4 \$ yg - at/		S
	'	,	st	0000	0	010	3305	265	5	001	494	5	0000	14	470			'	•				
	17	1	OBS	0000	0	010	33048	265	5					14	470								
			ST	D 0010	0	009	3306	265	6	001	484	6	0015	14	472								
			OBS		0	009	33060	265	6					14	472								
			ST		0	009	3307	265	7	001	475	1	0030	14	474								
	0.0	2	OBS			009	33072	265							474								
			OBS			010	33100	265							475								
			ST			010	3314	266		001	423	4	0044		477								
			085			010	33140	266							477								
			OBS			079	33200	267				_			438								
			ST			079	3325	267		001	300	2	0071		440								
			OBS			079	33252 3334	267		0.01	15.6				440 454								
			ST OBS			062 062	33342	268 268		001	236	0	0103		454								
			ST			047	3339	268		001	202	5	0134		465								
			085			047	33392	268		001	203	)	0134		465								
			OBS			042	33401	268							470								
			085			005	33450	268							488								
			ST			027	3346	269		001	161	8	0163		480								
			085			027	33457	269				-			480								
			085			024	33493	269							484								
			ST			035	3366	270		001	038	7	0191		515								
			OBS			035	33659	270						14	515								
			OBS		0	203	33980	271	.7						599								
			OBS		0	598	34579	272							777								
			ST			595	3460	272		000	847	4	0438		776								
			OBS			595	34595	272							776								
			085			520	34580	273					- 2		750								
			ST			486	3459	273		000	728	8	0277		740								
			OBS			486	34588	273							740								
			OBS	0265	0	483	34582	273	9					14	741								

CE	НІР		.	1000	-5	MARSO	SEN RE	STATE	ON TIA	ΛE	YEAR		DRIGINA			DEPTH	MAX, DEPTH	OBS	WAVE ERVATIO	NS.	WEA-	CLOUD			NODC	
	ODE	LATITU	1/10	LONG	NOTE HOLD	10*		MO D		.1/10	ICAR	CRUISE NO.	ST.	A TION	B	оттом	OF S'MPL"	1	HGT PER		CODE	TYPE A M.1			NUMBER	
308	EV	4413		048							1967	IIP	990	9	1	780	15	15	6 2		Хb	0 3			006	1
000	- 1			-		Ĺ	WAT	ER	w	IND	BARC	)-	AIR TEM	P. °C	- VIS	NO.	SPE	CIAL								
						C	CODE	TRANS.	DIR.	SPEED	METE (mbs	R I	DRY ULB	W E T BULB	CODE	OBS. DEPTHS	OBSERV	ATIONS								
						-	DI	SD	16	S35	0.0	_	72	072	+	31										
	_		_	_			D i	30	10	337	100				_				PO.		O TA L-P	NO2-N	NO3~N	SLO <sub>4</sub> -	.2	_
	TIME C	CAST	CARD	·	DEPTH (m)	ť	*C	s	4.	SIGN	\A−T	ANON	VOLUM	ÿ:   č	€ Δ D DYN, M. x 10 <sup>3</sup>	VELO	DOLLA	0 2 ml/l	pg - 01		ug + ot/t	ug - al/l	μg - α1/t			
н	R 1/10	-		-	-				_	-				-					+					1		
		1	l ST	D	0000	-00	111	330	3	26	54	001	4989	9 (	0000	14	461		1	1			1	'	,	
	185	5	085		0000	-00		330		26							461									
			ST		0010	-00		330		26		001	4985	5 (	0015		462									
			OBS		0010	-00		33(		26 26		001	4846		0030		462 458									
	00	2	ST OBS		0020 0020		25	33(		26		00.	(404)		0000		458									
	00.	,	51		0030		)45	330		26		00	14531	1 (	0045	14	450									
			085	;	0030	-00	045	330		26							450									
			ST		0050		052	33	100	26 26		00	14266	6	0073		451 451									
			OBS ST		0050 0075		052 069	33.		26		0.0	1327	2	0108		449									
			085		0075		069	33.	220	26	72					14	449									
			ST	D	0100		)44	33		26		00	1217	7	0140		467									
			085		0100		044		375	26		0.0	1067	_	0160		467 504									
			ST OBS		0125 0125		020	330	30	27 27		00	1053	0	0168		504									
			085		0142		176		330	27							579									
				5	0148	0	148	33	980	27							570									
				D	0150		330	34		27		00	0864	0	0192		652									
			085		0150		330 765		180 376	27 27							652									
			0B5		0160 0180		711		782	27							822									
			51		0200		370	34		27		00	0831	1	0234	14	679									
			085		0200		370		280	27							679									
			089		0230		496		545	27		0.0	0440		0272		742									
			S1 085		0250 0250		450 450	34	615		45	00	0668	4	0212		725									
			089		0290		415		690	27							718									
			51		0300		423	34			55	00	0580	5	0303		1724									
			08		0300		423		700		55	0.0	0539	2	0359		+724 +768									
			S1 0B3		0400 0400		486 486	34	865 865		61	00	0229	)	0223		768									
				TD	0500		484	34			65	00	0508	9	0411		785									
			08		0500	0	484		918		65						+785									
				TD	0600		441	34			68	00	0483	0	0461		4783 4783									
			08:	S TD	0600 0700		441 451	34	899 94		68 70	0.0	0475	7	0509		805									
			08:		0700		451		939		770	00	0		0-0,		805									
			OB:		0760		437	34	930	27	771						809									
				TD	0800		397		88		771	00	0467	5	0556		4798 4798									
			0В:	_	0800 0900		397 393		877 89		771 773	0.0	0463	1	0603		4813									
			QB:	TD S	0900		393		889		773			-			4813									
				TD	1000		389		89		773	0.0	0466	6	0649		4828									
			QB		1000		389		890		773		011	,	04.01		4828									
				TO	1100		377		89		774 774	00	0464	6	0696		4840 4840									
			0B	S TD	1100 1200		1377 1374		885 89		775	0.0	0467	74	0742		4855									
			0 B		1200		374		888		775					1	4855									
			S	TD	1300	0	370	34	89	2	775	0.0	0469	4	0789		4870									
			08		1300		370		890		775	0.0	0475	. 2	0836		4870 4886									
			S QB	TD	1400 1400		)368 )368		89 890		775 775	00	10473	, _	0036		4886									
				5 TD	1500		364		90		776	00	0472	25	0884	, 1	4901									
			J		1500		364		898		776					1	4901									

SHIP	LATITU	DE I	ONGITUDE	# MARSDEN	STATION TI	ME	YEAR		IGINA		$\exists$	DEPTH TO	MAX.	081	WAVE SERVATIO	NS	WEA-	CLOUD			NODC STATION
CODE	•	1/10	1/10	10° 1°				NO.				80110M	OF.				CODE				NUMBER
ΕV	4411	N 0	4845 W	149 48			967	<del></del>				2332	15	20	9 2		Х6	03			006
				COLOR	TRANS. DIR	SPEED	METE	R OR	Y.	P. °C WET BULB	VIS.	NO. OBS. DEPTHS	SPE OBSERV	CIAL 'ATIONS							
				DT	SD 20	540	01	0 08	13	083	0	32									
	CAST NO.	C ARD TYPE	DEPTH (m	ı r *c	s */.	SIGM	A – T	SPECIFIC	AOTHW	E ₹	△ D N. M 10 <sup>3</sup>	SOL		O2 ml/l				NO2~N ug - at/1	NO3-N 99 - al/l		
																					1
					3304			0015	054	0	000										
201								0013	1924	. 0	014										
		085	0010	0010	33180			0013													
0.00					3332			0012	776	0	028										
003	1																				
			0030	-0020	3354	269	96	0011	059	0	040										
		085						0010			٠.,										
								0010	1471	. 0	191										
		OBS	0060	0170	33795	270	)5					14	563								
		_						0006	007		104										
								0000	1791	U.	100										
		STD		0520	3450	272	8.8	0008	160	0	107	14	728								
		STD	0125	0540	3464	273	36	0007	390	0	127	14	742								
								7			1.5										
								0007	391	. 0	145										
			0200	0518	3470	274	4	0006	762	. 0	180	14	746								
		OBS																			
		STD	0250	0490	3478	275	5.3	0005	915	0.	412	14	744								
		_						0005	720	0.	241										
		085			34903																
		STD			3489			0005	055	0.	295										
		_						0004	786	0.	344										
		oBs			34908																
					3492			0004	630	03	391										
								0004	559	n n	437										
		0B5			34916				,	•											
					3492			0004	546	04	+83										
								0004	510	n 0.	228										
		OBS			34915			000	-10	•											
					3492			0004	537	0	573										
								0006	515		- 10										
		085			34916			0004	713		- 1 7										
		STD	1200	0380	3492	277	6	0004	549	0	64	14	858								
		085			34915			0001	E/-		700										
								0004	26/	U	109										
					3491			0004	600	0	755										
		085			34909					-	0.0.										
		STD	1500	0361	3491	277	7 81	0004	606	. 0	801	14	900								
	EV	EV 4411	CODE   CATTON   CARD   TITLE   CAST   CARD   TITLE   CAST   CARD   CAST   CARD   CAST   CARD   CAST   CARD   CAST   CARD   CAST   CARD   CAST   CAST   CARD   CAST   CAS	No	SAU	EV	EV	EV	EV	EV	EV	EV   4411 N   04845 W   149   148   04   25   201   1967   11P   9910	EV   4411 N   04845 w   149   48   04   25   20   1967   11P   9910   2332	EV   4411 N   04845   W   149   48   06   25   201   1967   11P   9910   2332   136   14	EV   4411 N   0.4845 w    149   48   04   25   201   1967   11P   9910   2332   15   20   20   20   20   20   20   20   2	EV   4411 N   04845 W   149   84   06   257   201   1967   118   9910   2332   15   20   9   2   2   2   2   2   2   2   2   2	EV   4411 N   0485 W   149   48   06   25   201   1967   178   9910	EV	EV   4411 N   04845 W   149   80   04   125   201   167   119   9510   2332   15   20   9   2   X6   0   3	The color   The	The color   The

REFERENCE					- L	ARSOEN	AIT MOSTATE	A.F.		RIGINATO	DR'S	DEPTH	MAX.		WAVE	WEA-	CLOUD		Т,	NODC
CTRY ID.	SHIP	LATITU	DE L	ONGITUDE	[불원] 5	QUARE	(GMT)	YEAR	CRUISE	51 A	TION	TO	DEPTH	OBS	ERVATIONS	THER	CODES	ł	S1	TATION
CODE NO.	CODE		1/10	1/10	2 - 11	1-	MO DAY HR	1/10	NO.		MBER	BOTTON	S'MPL"S	DIR.	HGT PER SE	CODE	TYPE AM	7	N	U AA BER
318008	EV	4408	N O	4831 W	1.4	49 48	04 25 2	17 196	7 11P	991		3383	04	18	9 2	х6	03			0063
2 10000	A CA	1 4400	N   0	-031 #	1 12	WA		NO.		IR TEMP.	°C	T NO	1		71-1	, ,,,	. 0 )			0000
						COLOR	TRANS DIR.	SPEED ME		RY 1	VET CO	085.	SPE( OBSERV							
						COOE	im) DIK.	OR (m)	bs) Bi	JLB 8	ULB	DEPTHS								
						DT	SD 18	540 0	14 1	06	06 0	27								
							1		T		₹ Δ 0	, ,								
	MESSEN	GR L CAST	CARD	DEFTH	Lm 1	ĭ °C	5 %.	SIGMA-T	SPECIFIC	VOLUME	OYN. 103	A	OCITY	02 m1/1	PO4~P	TOTAL-F ug - at/1	NO2-N ug - 01/1	NO3-N yg - ot/l	\$1 O4-\$1 µg = at/1	pH
	HR 1/1								+		X 10*		-				-			
		ļ			-								†				ļ	Ī		
			STD			0505	3373	2669	001	3635	000		695							
	2	17	085	000		0505	33732	2669		_			695							
			STE			0507	3375	2670	001	3562	001		698							
			OBS	001		0507	33746	2670		25 4 -			698							
			STC			0512	3375	2670	001	3567	002		702							
	0	01	OBS	002		0512	33754	2670					702							
			085	002		0513	33755	2670		2555	00:		703							
			STE			0514	3376	2670	001	3555	004		704							
			OBS	003		0514	33760	2670		2012	20.4		+704							
			ST			0820	3450	2687	001	2012	006		839							
			085	005		0820	34495	2687					839							
			oes	006		0989	34930	2694	1	0057	000		+909							
			ST			0928	3486	2699	001	0956	009		888							
			obs	007		0928	34864	2699					+888							
			OBS	008		0910	34880	2703					884							
			OBS	009		0928	34920	2703	001	0202	012		4891 4863							
			ST			0853	3481 34805	2706 2706	001	0292	012		4863							
			OBS	010		0853 0500	3431	2715	000	9384	014		4722							
			312	012		0500	34310	2715	000	7704	0.74		+722							
			085 085	012		0451	34323	2722					4702							
			OBS	014		0509	34405	2722					4729							
			511			0488	3440	2724	000	8605	016		4722							
			085	015		0488	34400	2724			0.40		4722							
			OBS	017		0394	34420	2735					4687							
			ST			0625	3477	2736	000	7565	020		4791							
			085	020		0625	34768	2736	000		0-0		4791							
			085	020		0634	34786	2736					4795							
			085	022		0495	34680	2745					4740							
			085	024		0604	34850	2745				1	4790							
			STI			0569	3485	2749	000	6319	024	4 1	4777							
			OBS	025	0	0569	34850	2749				1	4777							
			STI			0550	3489	2755	000	5838	027	4 1	4779							
			OBS	030	00	0550	34892	2755				1	4779							
			085	030	)5	0537	34930	2760				1	4775							
			085	035	8 6	0581	35000	2760				1	4802							
			085	039		0466	34855	2762				1	4758							
			ST			0474	3491	2765	000	4954	0 5 2	8 1	4764							
			OBS	040		0474	34905	2765				1	4764							
			085	040		0480	34920	2766				1	4768							

REFERENCE CTRY ID.	SHIP	LATITU	DE 1/10	LONGITUDE	DPIFF IMDC18	MAPS SQUA	ARE		OAY		YEAR	CRUISE NO.	STAT NUA	TION	DEP TO BOTT	2	MAX. DEPTH OF S'MPL'S	-	WAVE SERVATIONS HGT PER S	CODE	CLOUD CODES		51	ATION UMBER
31800	a Ev	4419	N	04927	4	149	49	04	27	166	1967	LIP	9912	2	006	58	00	01	4 2	X1	6 2			0064
,							WA	TER.	T .	WIND	BAR	A IR	TEMP.	*C	NO		SPEC	IA i						
							COLOR	TRANS (m)	DIR.	SPEED OR FORCE	M ET	R DR		VET COS			OBSERVA							
									36	518	24	4 02	5 (	008 7	0	5								
	MESSENGE TIME O HR 1/10	CAST NO.	CARD		(m.)	T	°c	5	٠4.	SIGM	A-T	SPECIFIC V	Y-X10"	≥ △ C DYN. A x 10 <sup>3</sup>	,	SOU!		O 2 m1/1	PO4=P	fotal-F ug - ol/I	NO2=N µ2 = 01:1	NO3=N µg = at/l		рН
	166		ST OBS				241		76 758	26 26		0018	551	300		145 145					1			
	100	•	ST				236		76	26		0018	517	001	9	145	69							
	166	•	OBS				236 232		758 76	26 26		0018	482	003	7	145 145	69							
	166	•	08S ST				232 225		759 77	26 26		0018	3372	005	5	145	68							
	166 166		0BS		30 39		225 184		1767 1138							145								

REFERENC CIPY IO CODE NO	SHIP	LATITU	DE 1/10	LONGITUDE	DR.F	MARSOEN SQUARE		ION T		rEAR		ATOTAL STATE	DN .	1	EPTH TO TTOM	MAX. OEPTH OF S'MPL'		WAVE ERVATI	ONS	WEA- THER CODE	CODE	s	S.	NODC TATION UMBER
3180	08 EV	4417	' N   -	04914 W		149 49	04	27	180 1	967	11P 99	13		00	)82	01	01	5 2		X1	3 2			0065
	8008 EV   4417 N   04914 W   149   49   04   27   180   1967   11P   9913   0082   01   01   5 2     X1   3 2																							
	WATER   WIND   BARD.   AIR TEMP. \( \tau \) VII.   NO.   OSS.   OSSERVATIONS																							
	111/1	NO.		DEPTH	lm)	т *С	s	٠/	SIGMA	A = T			OYN. A				0 2 ml/l	1 -						рН
						-																		
									264	8	001560	13	0000	) (	145	89		,				•		
	18	0	OBS			0271		178	264							589								
		_	STI			0264	33		264		001553	7	0016	5		87								
	18	0	085			0264		180	264			_			145									
	1.0	^	STI			0253	33		265		001530	13	0031	L		585								
	18	U	OBS STI			0242 0228	33	212	265 265		001601	2	004		145									
	18	n	0BS	003		0228		237 227	265		001491	U	0046	•	149	76								
		•	STI			0179	33		266		001384	. 0	0075	5		559								
	18	0	OBS	005		0179		322	266		001501	•				559								
			STI			0233	33		267		001286	1	0108	3	145									
	18	0	OBS	007	5	0233	33	505	267						145									

REFERENCE CTRY ID. CODE NO.	SHIP	LATITU		LONG		DRIFT	MAR. SQU	ARE		TION 1		YEA	R	CRUISE	5	ATOR'S		1	PTH 10 10M	MAX. DEPTH OF		WAVE SERVATIO		WEA- THER CODE	CLOUE	5		ST.	ODC ATION
1			1/10		1/10	+	10*	1.			HR,1/10		-	NO.		UMBER	_		-	S'MPL'S	DIR	HGT PER	SEA	-	TYPE A A				101961
31800	BEV	4414	N	049	01 W		149		04	-	198	196	57		99			12	82	12	01	5 2		X1	3   2	i			066
								WA	_	+	UND SPEED		A RO			иР. °С	- vis.	N	0.0	SPEC	IAL								
								COLOR	TRAN:	S. DIR.	OR	1 77	ETER mbs1			BULB	cop	OEP	THS	OBSERV.	A TION S								
									<u> </u>	36	_	-	240	-	14	-006	7	1	4										
							_		1	70	310	-	2 4 (	1 00	100		_	-	4			_	_			_	_		
	MESSENGI	CAST W NO.	CAR TYP		DEPTH	(m.)	1	°C	9	٠/	SIG	MA-1	1	SPECIFIC		., D	ΥΝ. P	۸. ا	VELO		0 2 m!/l	PO 4-		OTA L P	NO2-N	NO <sub>3</sub>		04-51	ρН
	HR 1/10		111				<u> </u>		1_				_			_	x 10 <sup>3</sup>	$\perp$	VELO	CIII		μg = 01	1/1 1	yg = at/l	ug - a1/1	h8 - 0	171 99	- ot/	
				ļ									- 1															}	
				TD	000			189		120		556		0014	+83	2 0	000	) (	145	53									
	19	8	0В:		000			189		199		556							145										
				ŢD	001			189	_	320		556		0014			015		145										
			_	ŦD	002			178		119		556		0014	482	1 0	030	)	145										
	19	8	0B:	-	002			174		190		556							145										
	10			TD	003			160		18		557		0014	+ 78	4 (	044		145										
	19	8	OB:	S TD	004			099		164 17		563		001	. 1.	7 ^	073		145										
	19	Ω	0B:		006			070		169		668		0014	+10	, ,	0 / 3		144										
		0		TD	007			026		325		573		001	3 2 1	9 0	108		144										
	19	8	0B:		009			066		3425		682		001.	,,,,	0 (	-00	_	145										
		_		TD	010			169		51		82		0012	235	7 0	140		145										
			S	TD	012	5	0	411	3.3	179		84		0012			171		146										
	19	8	ОВ:	S	013	5			33	914																			
			S	ΤD	015	0	0	587	34	19	26	95		001	132	9 0	200	)	147	59									
	19	8	OB:	S	018	12	0	715	34	631	2 7	713							148	21									
				TD	020			658	_	64		721		0008	394	5 0	251	L	148	102									
			-	T D	025			525		64		738		000	735	3 0	292		147										
	19	8	0B:		T027			472		648		745				_			147										
			_	TD	030			430		65		750		0006	526	2 0	32€		147										
	19	8	0B:		036			355		651	_	758		0000	- 2 /	2 ^	30.		147										
			-	TD TD	040			378		71 85		760 766		0005			384		147										
	19	٥	OB:		T 055			437		903		769		0004	+70	0 0	→ > 5		147										
	19	0		S TD	060			426		903	_	770		0004	466	8 0	483		147										
				T D	070			404		90		772		0004			528		147										
	19	8	0 B :		T075			396		896		773		000					147										
				T D	080			390		90		774		0004	442	3 0	573		147										
				TD	090			383		90		775		000-			617		148										
	19	8	0 B	S	T 0 9 7		0	380		902		775							148	20									
				ΤD	100			380		90		75		0004	47	0 0	662		148										
	19	8	0 B S		T104			380		903		775					_		148										
				TD	110			379		90		75		0004			707		148										
			S		120			377		91		776		0004	+57	1 0	752		148										
	21	2	083	5	T123	2	0	376	34	908	27	776							148	62									

REFERENCE	SHIP	LATITU		TONGITUDE POR	MARSDEN SOUARE	STATION TIN	YEAR	ORIGINATO	ION	TO DEPTH	MAX. EPTH OF MPL'S	OBSE	WAVE PVATIONS	WEA- THER CODE	CODES		S.	NODC TATION UMBER
_	_		1/10	1/10 =		MD DAY HR					13	_	2 2	X1	6 2	1		0067
31800	08 EV	4411	N	04847 W		04 28 0		IIP 9915			13		2   2	1 ^1	1 0 2	1	- 1	000,
					COLOR		SPEED MET	0.	VIS VET CODE	NO. 085.	SPECIA BSERVATI							
					CODE	TRANS. DIR.	FORCE (mb		UL8	DEPTHS	03E v v W II	0.113						
						36	520 24	0 006 0	00 7	13								
	MESSENG	or NO.	C A R D TYPE	DEPTH (m)	1 %	5 */	SIGMA-T	SPECIFIC VOLUME ANOMALT-X107	₹ ∆ D DYN, M x 10 <sup>3</sup>	SOUND		m1/I	PO4-P	10TAL-P		NO3-N ug - 01/I		рН
	HR 1/1	0								1								
		1	ST	0000	-0006	3299	2651	0015293	0000	1446	52				1	,		
	00	0.0	OBS	0000	-0006	32993	2651	• • • • • • • • • • • • • • • • • • • •		1446	52							
	0.0	, ,	ST		-0011	3301	2653	0015123	0015	1446	52							
			ST		-0018	3303	2655	0014937	0030									
	0.0	00	OBS	0028	-0025	33047	2656			1445								
			ST		-0027	3307	2658	0014604	0045									
			ST		-0050	3328	2676	0012900	0073	1445								
	00	00	OBS	0054	-0054 0102	33318 3350	2680 2686	0011987	0104									
	0.0		ST	D 0075 0082	0102	33544	2688	0011967	0104	1454								
	00	0	OBS ST		0042	3358	2696	0011031	0132	-								
	0.0	20	OBS		0035	33626	2700			1450	80							
	0.0		ST	_	0197	3390	2712	0009617	0158	1458	87							
			ST		0398	3426	2722	0008698	0181									
	00	00	OBS		0488	34437	2726			1472								
			ST		0591	3471	2736	0007567	0222									
	0 (	00	OBS		0623	34810	2739	0001157	0.35	1479 147								
			ST		0568	3480	2746	0006657	025									
	_		ST		0497	3479 34785	2754 275 <b>7</b>	0005942	028	147								
	00	00	OBS		0460 0460	34765	2762	0005199	034									
			ST ST		0459	3492	2768	0004781	039									
	0.1	00	088		0459	34938	2769			147	81							
	0		ST	-	0456	3496	2772	0004554	044	_	_							
	0	00	OBS		0449	34967	2773			147								
			ST		0436	3496	2774	0004421	048	-								
			ST		0408	3494	2775	0004337	053									
	0	00	OBS		0391	34924	2776		053	148								
			ST		0388	3492	2776	0004320	057									
			ST		0376	3492	2777	0004304	061									
	_	^ ^	ST		0368	3491 34911	2 <b>7</b> 77 2777	0004339	005	148								
	0	00	089		0367 0366	34911	2777	0004394	070									
			S1		0365	3492	2778	0004443	074									
	0	00	0B9		0365	34917	2778	500.743		148								
	U	00	OBS	17351	0363	34711	2110			- 70								

REFERENCE SHIP CODE LA	TITUDE L	ONGITUDE JUNE	MARSDEN SQUARE	STATION I		R CRUISE S	ATOR'S STATION NUMBER	DEPTH TO SOTTOM	MAX, DEPTH OF S'MPL*S		WAVE ERVATION	000	CODES		9	NODC STATION NUMBER
318008 EV 44		14834 W	149 48		023 196			3109	1	35	3 2		TYPE AM	1		
			WA		WIND	A 10 TE		. NO.	,		13   2	X1	6 2	1	ı	0068
			coro	TRANS. DIR.	SPEED M	ARO- ETER DRY	WET CO	OBS.	SPE( OBSERV							
			CODE	(m) DIK.	FOFCE 6	mbs) BULB	BULB	DEPTHS	OUSERV	- 110143						
				01	S26 2	254 017	011 7	12								
MESSENGR CA	ST CARD				1	SPECIFIC VOLU	5 ^				T	1.			1	$\overline{}$
TIME OF NO		DEPTH (m)	1 ,C	s ·/	SIGMA-1	ANOMALY-XI		M. VEL	UND OCITY	0 2 m1/l	PO4-P	10TAL-F	NO2-N ug - a1/l	NO3→N yg - a!/I	SI O4-Si yg - at/	
HR 1/10				-							+ -	-		pyron	24	-
	1		0.774	2/17	74		_							l		
023	STD OBS	0000	0776	3417	2668	001370	2 000	-	809							
023	STD		0776 0775	34172 3417	2668 2668	001372			809							
	STO		0774	3417	2668	001372			811							
023	OBS	0023	0774	34167	2668	001372	7 002		812							
	STD		0767	3417	2669	001366	1 004		811							
023	085	0045	0751	34166	2671	001300	1 004		807							
	STD		0820	3435	2675	001308	9 006		837							
023	OBS	0068	1000	34864		00100	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		913							
	STD	0075	0967	3483	2689	001182	6 009		902							
	STD	0100	0866	3475	2700	001089	5 012	7 14	867							
	STD	0125	0791	3471	2708	001013	3 015	4 14	843							
023	OBS	T0133	0772	34701	2710			14	836							
	STD		0750	3472	2715	000952	0 017	8 14	831							
023	OBS	0174	0719	34735	2720				823							
	STD		0682	3475	2727	000844		3 14	813							
	STD		0621	3479	2738	000742	1 026		798							
023	OBS	T0256	0615	34799	2740				796							
0.7.2	STD		0579	3485	2748	000651	1 029		790							
023	OBS	0336	0553 0514	34884	2754	000551	0 035		786							
	STD		0468	3489	2759	000554			780							
023	085	T0504	0466	3490 34904	2765	000503	3 041		778							
023	STD		0442	3491	2766 2769	000476	0 046		778							
023	085	10680	0442	34912		000476	0 046		784 791							
023	STD		0425	3491	2771	000464	0 050		793							
	STD		0415	3492	2773	000457			806							
023	OBS	T0896	0404	34924	2774	000.71	- 0-7		817							
	STD		0404	3492	2774	000453	3 059		818							
	STD		0390	3492	2775	000445			829							
023	OBS	T1073	0380	34905	2775				837							

REFERENC	SHIP	LATITE	IDE LON	IGITUDE BELLING	MARSDEN SOUARE	STATIO	N TIME	Y	EAR	32111G	IATOR'S	4	DEPTH TO	MAX, DEPTH	085	WAVE ERVATIONS		COOES		STA	ODC ATION IMBER
CODE NO	CODE	•	1/10	· 1/10 0 =	10" 1"	MO DA				NO.	NUMBE	R	BOTTOM	S'MPL'S	_	HGT PER S		1111 / 7/11	_		
31B0	16 EV	4020	N 05	020 W			2 06		967	99	17		4663	15	14	4 2	X6	0 3		0	0001
					COLOR	-	WIN	SPEED	BARO-	_	WET	COD	NO.	SPEC OBSERVA	IAL LTIONS						
					CODE	(m)		OR ORCE	(mbs1	BULB	BULI	-	UEPIRS	-							
					DT	SD	14 5	12	186	167	16		45	<u> </u>				. —	_		
	MESSEN	CAST	CARO	DEPTH IMI	1 °C	ς.	۸ ا	SIGMA	1 - T	SPECIFIC VOLE	JME 107	≨ ∆ D N. M	SO	OCITY	02 m1/1	PO4-P	10TAL- pg - 01/		NO3-N µg - o1/I	51 O4=51 µg + a1/1	pН
	HR 1/1	0 NO.	TYPE				_		_			x 10 <sup>3</sup>	- 1	-		1000		-		-	
			_		1674	75.6	_	262	, !	00177	.	0000	\ 15	104			ł	1			
	0.4	55	STD OBS	0000	1574 1574	355 355		262	-	001772	. 0	0000		104							
			OBS	0008	1573	356	10	263						106							
			STD	0010	1532	355 355		263 263		001692	24	0017		092 092							
	0	03	OBS OBS	0010 0011	1532 1502	356		264						084							
			STD	0020	1499	356	2	264		001576	51	0034		084							
			OBS	0020	1499	356		264		00146	4.3	0049		084							
			STO OBS	0030 0030	1462 1462	356 356		265		00146	00	004		075							
			OBS	0043	1467	358		266						080							
			STD	0050	1447	358		267		00134	92	007		075 075							
			OBS STD	0050 0075	1447 1404	357 357		267		00133	31	011		064							
			085	0075	1404	357	07	267	74				1 5	5064							
			STD	0100	1389	356 356		267		00133	56	014		5063 5063							
			OBS STD	0100 0125	1389 1361	356		267		00131	73	017		5057							
			OBS	0125	1361	356		26	77					5057							
			STD	0150	1342	356		26		00130	86	021	-	5055 5055							
			08S 0BS	0150 0166	1342 1314	356 355		26						5048							
			OBS	0169	1349	356		268					1 !	5061							
			STD	0200	1324	356		26		00126	94	027		5057 5057							
			OBS	0200 0203	1324 1322	356 356		268						5057							
			OBS OBS	0213	1286	35!	-	26						5046							
			OBS	0220	1302	356		26			0.4	017		5053							
			STD	0250 0250	1258 1258	35	52 520	26		00123	06	033		5042 5042							
			OBS OBS	0276	1247		500	26					1	5042							
			OBS	0290	1200		460	26		0011/		030		5028							
			STD	0300 0300	1224 1224	35	57 571	27 27		00114	16	039		5039 5039							
			08S 08S	0326	1170		410	26					1	5023							
			oBs	0342	1069		319	27						<b>4989</b> 4990							
			085	0349 0380	1069 0969		344 210	27 27						4958							
			08S 08S	0390	0970		235	27					1	4960							
			STD	0400	0961	35		27		00096	22	0>0		4958 4958							
			OBS	0400 0430	0961 0885		209 148	27 27						4934							
			OBS STD	0500	0787	35		27		00080	90	059	0 1	4907							
			OBS	0500	07B7		860	27						4907 4853							
			OBS OBS	0568 0580	0622 0645		990 010	27 27						4864							
			STD		0612	34			53	00064	+65	066		4854							
			OBS	0600	0612		970		53					4854							
			OBS	0639 0671	0590 0538		972 950		56 61					4852							
			08s 08s	0695	0555		982		62					4847							
			STD		0538		97		63	00056	524	072		4841							
			08S STD	0700	0538 0498		969 99		69	0005	103	07		4841							
			085	0800	0498		986		69					4841							
			STO	0900	0479		01		72	0004	834	082		14850 14850							
			085	0900	0479 0462		005		172 175	0004	659	08		4860							
			STI OBS	1000	0462		014		75				1	14860							
			STO	1100	0451	. 35	02	27	777	0004	571	09		14872							
			OBS	1100	0451		021		777 778	0004	477	09		14872 14880							
			<b>ST</b> ( 0BS	1200 1200	0429		009		778	5004	. , ,			14880							
			STO	1300	0416	35	00	2	779	0004	508	10		14891							
			OBS	1300	0416		995 99		7 <b>7</b> 9 779	0004	527	10		14891 14904							
			STI OBS	1400 1400	0408		991		779	5554				14904							
			ST		0396		98		780	0004	527	11	01	14916							
			311	1500	0396		982	_	780					14916							

ID.	SHIP	LATITU		ONGITUDE SOUTIDING.	MARSOEN SOUARE	STATION T (GMT)	IME	YEAR	CRUISE	OTAN! TAT2	ON	DEPTH TO	MAX. DEPTH OF	08	WAVE SERVATIONS	WEA- THER	CLOUD		T	NODC
NO. 8016		4050	1/10 N (	1/10 = 05019 W	150 00	MO DAY P		1967	NO.	NUM	8ER	80110M	S'MPL"		HGT PER SEA		TYPE AM	1	_	NUMBE
	, -, ,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	WA	TER V	WINO	BARC	A IR	918 TEMP.		3840 NO.	15	15	5 2  	I x2	0 3		-	000
					COLOR	TRANS. DIR.	SPEED OR FORCE	M ETE (mbs		8L	ET COD	OBS. DEPTHS	OBSERV	ATIONS						
		7			DT	SD 14	518	15	2 178	1	72 6	38								
	MESSENGR	NO.	CARD TYPE	DEPTH (m)	r *c	s */	SIGN	A-T	SPECIFIC VO	LUME X107	₹ △ D	. SOL	DOLLTA	O 2 ml/l		OTAL-P	NO2-N		SI 04=	
	HR 1/10						-				x 103	-			μg • a1/1	μg = o1/l	)/to + gu	μg - o1/1	yg - al.	1 '
		'	STO		1685	3608	264	40	00164	06	0000	15	144		1	l		i I		
	098	3	OBS STD	0000	1685 1627	36079 3598	264 264		00158	4.8	0016	15	144 127							
			OBS	0010	1627	35982	264	46	00150	40	0016		127							
	003	3	STD OBS	0020	1561 1561	3591 35909	265 265		00149	71	0032		107 107							
			OBS	0025	1549	35908	265	58					105							
			STD OBS	0030	1545 1545	3591 35909	265 265		00146	59	0046		104 104							
			085	0047	1530	35951	266					15	103							
			ST0 085	0050	1556 1556	3607 36065	266 266		00138	20	0075		113 113							
			OBS	0058	1556	36064	266	8 6					114							
			STD OBS	0075	1499 1499	3595 35951	267 267		00135	13	0109		098 098							
			OBS	0088	1498	35966	267	74					100							
			STD OBS	0100	1485 1485	3595 35947	267 267		00133	24	0143		097 09 <b>7</b>							
			STD	0125	1450	3586	267	76	00133	03	0176	15	089							
			085 STD	0125 0150	1450 1419	35860 3579	267 267		00132	27	0209		089 082							
			oBs	0150	1419	35793	267	78	00152	_ '	020)	15	082							
			085 STD	0183 0200	1340 1345	35610 3565	268 268		00129	34	0274		060 065							
			OBS	0200	1345	35648	268		00127	74	0-14		065							
			OBS OBS	0218 0237	1299 1362	35550 35762	268 268						051 078							
			STD	0250	1337	3569	268	17	00126	8 0	0338	15(								
			OBS STD	0250 0300	1337 1222	35690 3553	268 269		00116	Ω 5.	0399	15( 15(								
			085	0300	1222	35529	269	8	00110	0,5	<b>Q</b> 233	150								
			OBS STD	0308 0400	1160 0939	35430 3516	270 272		00096	5.5	0506	150 149								
			OBS	0400	0939	35155	272	0				149	949							
			STD OBS	0500 0500	0740 0740	3505 35054	274 274		00074	74	0591	146								
			OBS	0560	0634	34993	275	2				148								
			STD OBS	0600 0600	0587 0587	3499 34990	275 275		00059	8 2	0659	146								
			085	0660	0551	35011	276					148								
			08s 08s	0680 0691	0556 0592	35030 35134	276 276					148								
			STD	0700	0591	3511	276		00052	56	0715	148								
			OBS STD	0700 0800	0591 0500	35114 3501	276		000/0		07//	148	364							
			OBS	0800	0500	35014	277 277		00049	22	0766	148								
			08s 08s	0870 0880	0472 0479	35018	277					148	343							
			STD	0900	0474	35024 3502	277 277		000466	57	0814	148 148								
			OBS STD	0900 1000	0474 0449	35019 3501	277		00045		0840	148	348							
			OBS	1000	0449	35011	277 277		00045	13	0860	148								
			STD OBS	1100 1100	0438 0438	3501	277	8	00044	7 8	0905	148	367							
			STD	1200	0438	35011 3501	277 277		000441	16	0949	148 148								
			OBS STD	1200 1300	0422 0410	35005 3499	277 277	9				148	77							
			OBS	1300	0410	34990	277	9	000446		0994	148 148								
			STD OBS	1400 1400	0400 0400	3499 34990	278 278		000443	30	1038	149	01							
			STD	1500	0390	34990	278		000438	9	1082	149 149								
			085	1500	0390	34990	278					149								

SHII		LATITU		DAGITUDE DE NOCITOR	MARSDEN SQUARE	STATION	AT)	YEAR	CRUISE NO.	ORIGINATO	TION	DEP	0 1000	н ов:	WAVE SERVATION		WEA- THER CODE	CLOUD CODES		\$	NODC TATION IUMBER	
0.	-	4110	1/10 N O	17.10		05 12	132		+	9919		36	3 77110				x2	0 3			0003	3
16 EV	<b>,</b> 1 ,	4119	N   0	>UI # }	WAT		WIND	BAR	o- L	AIR TEMP.	۳ ۷۱	NC	. SP	ECIAL	, ,		_					
					COLOR	TRANS. D	IR. O	ED MET	ER		WET CO		2. OBLED	VATIONS								
					DT	SD 1	$\overline{}$				161 8	4	9									
				Τ	<u>`</u>				T	IC VOLUME	₹ ∆ DYN.	- <del>1</del> T	SOUND		PO	PT	OTAL-F	NO2-N	NO3-N	5104-5	рН	_
MESS!	ENGR	NO.	CARD	DEPTH (m)	1 °C	5 ./.	. S	IGMA-1	ANOA	MALY-X107	DYN. x 10	y.   .	VELOCITY	0 2 ml/	µg = 01		yg - s1/I		yg = a1/1	μg - at/	P	
HR	1/10												-									
ŀ	1		510	0000	1306	3511	۱ ' á	649	00	15546	000		15012		,							
	132		085	0000	1306	3511		649			001		15012									
			STD	0010 0010	1300 1300	3522 3521		658	00	14681	001		15013 15013									
			08S STD	0020	1200	3504		2664	00	14131	003		14979									
	003		085	0020	1200	3504		664					14979									
			085	0027	1134	349		2666					14955 14955									
			08S STD	0028	1134 1142	349 349		2666 2667	00	13829	004		14959									
			085	0030	1142	349		2667					14959									
			085	0031	1250P			2647P					14947									
			085	0040	1100 1110	350. 351		2681 2689	0.0	11879	006	9	14953									
			STD 085	0050	1110	351		2689	30		500		14953									
			085	0070	1245	354	80	2689					15008									
			STD		1240	354		2689	00	11935	009	9	15007 15007									
			085	0075	1240 1218	354 354		2689 2690	۵۵	11891	012	9	15007									
			STD 085	0100	1218	354		2690	30	•			15003									
			STO	0125	1199	353		2691		11824			15000									
			ST		1190 1190	353 353		2692 2692	00	11796	018	88	15001									
			085 ST	0150	1200	354		2693	00	11880	044	7	15013									
			085	0200	1200	354		2693					15013									
			085	0242	1183	353		2693		11464	030	١.6	15013									
			ST0 085	0250 0250	1138 1138	353 353		2698 2698	00	111464	000	,,	14998									
			085	0253	1149	353		2698					15003	3								
			085	0268	1148	353		2699					15005									
			085	0280	1120	353 353		2704 2701					14997									
			085 STI	0281	1135 1038	351	_	2705	0.0	010883	3 03	51	14969									
			085	0300	1038	351		2705					14969									
			ST		0758	349		2735	0.0	008061	L 04	56	14879									
			085	0400 0432	0758 0714	349 349		2735 2741					1486									
			08S 08S	0438	0724	350		2743					1487									
			STI		0635	349		2751	0.0	006537	7 05	29	1484									
			085	0500	0635	349		2751	0.0	00573	3 05	<b>a</b> n	1484									
			STI	0600 0600	0522 0522	349	910	2760	0.0	30373.	, 0,	, ,	1481									
			08S 08S	0650	0538	349		2764					1483									
			ST		0507	349		2768	0 (	005078	8 00	44	1482 1482									
			085		0507 0483		989	2768 2772	0	00477	2 06	94	1482									
			ST 085		0483		005	2772			<b>~</b> -		1483	5								
			085		0470	34	992	2772					1483									
			085	0860	0462		991	2773 2775	0	00458	g n7	41	1483 1484									
			ST 085		0462 0462		009	2775	U		5 01		1484									
			085		0460	35	014	2775					1485	3								
			ST	D 1000	0421	34	95	2775	0	00461	4 07	87	1484									
			085		0421		950 990	2775 2779					1484									
			08s 08s		0411 0422		990 980	2777					1485	0								
			085	1070	0405	34	952	2776				0.3	1484									
			ST	D 1100	0403			2777		00444	9 00	32	1485									
			085		0403		955 978	2777 2779					1485									
			089 089		0410		980	2778					1486									
			089	1158	0409	34	92P	2773														
			OBS		0396		92P 95	2775 2778		00444	3 08	376	1486	, 3								
			S1 089				948	2778		,55777	, ,		1486	. 3								
			089	-	040	3 34	970	2778					1487									
			51	TD 1300	0392	2 34	96	2778		000447	9 09	21	1488									
			089				957 96	2778 2779		000446	7 0	966	1489									
			S1 08:				962	2779		, 5 , 0	•		1489	95								
			08:		0384	4 34	967	2780	1				1490									
			089	5 1439			970 97	27 <b>7</b> 9 2780		000452	2 1	11	1490									
				TD 1500				2 / BU	. 1													

REFERENCE									,	_										
CTRY ID.	CDDE	EATITU.	DE 1/10	FONGITUDE	MARSDEN SQUARE	STATION T	_	YEAR	CRUISE	STATIO	N	DEPTH TO BOTTOM	MAX, DEPTH OF	OBSE	WAVE RVATIONS	WEA-	CLOUD		STA	
318016	6 EV	4138		05014 W		05 12		967		NUMBI 20	.*	3795	S'MPL'S		HGT PER SEA	X 1	TYPE AMI			MBER
					COLOR		SPEED	BARO	- AIR TE	MP. C	VIS.	NO.	SPEC	IAL	2121	; ×1	1 0 3	1	1 01	004
					CODE	IRANS. DIR.	OR FORCE	(mbs	) BULB	BUL		DEPTHS	OBSERV	2 MOIT A						
	MESSENG	CATT	CARC		DT	50 14	510	17		16	_	53								
	*IME HR 1/10	NO.	TYPE	DEPTH (m)	1 %	s */	SIGM	A-T	ANOMALY = X	JME 10 <sup>7</sup>	₹ Δ Ω 0YN, M x 10 <sup>3</sup>	. VELO		O 2 m1/1	PO4-P vg - 01/1	1014L-P 1/10 - Qu	NO2-N ug - at/i		1 04-Si 1 0 - 01/I	pH C
					_														-	
	17	0	ST OBS		1309 1309	3511 35110	264 264		001561	. 9	0000	150 150								, .
	00	3	OBS OBS	0005 0009	1319 1261	35210 35130	265	4				150	019							
	•	-	ST	0010	1331	3558	265 268		001262	4	0014	149								
			OBS OBS	0010 0011	1331 1343	35580 35583	268 267					150 150								
			ST OBS		1355 1355	3563 35630	267 267	9	001275	7	0027	150	38							
			OBS	0025	1370	35651	267	7				150 150								
			ST OBS	0030	1320 1320	3551 35505	267 267		001301	6 (	0040	150 150								
			OBS ST	0039	1250 1250	35450 3544	268 268		001210	۷ ,	30 ( E	150	04							
			OBS	0050	1250	35442	268	5	001219	u (	0065	150 150	06							
			OBS ST	0060 0075	1235 12 <b>2</b> 3	35418 3541	268 268		001200	7 (	095	150 150								
			OBS OBS	0075	1223 1223	35408 35409	268 268	8		. (	/ J	150	00							
			085	0090	1151	35255	269	0				150 149								
			STI OBS	0100	1148 1148	3525 35253	269 269		001184	1 (	125	149 149								
			0BS 0BS	0115 0123	1145 1153	35260 35267	269	1				149	78							
			ST	0125	1150	3527	269 269		001185	0 (	155	149 149								
			085 085	0125 0129	1150 1131	35265 35230	269 269					149 149								
			OBS	0140	1130 1145	35245 3533	269	3	00112.			149	76							
			085	0150	1145	35330	269 269		001134	5 (	1184	149								
			OBS OBS	0159 0160	1174 1184	35388 35388	269					149 150								
			OBS OBS	0170 0188	1183 1198	35400	269	5				150	02							
			0Bs	0190	1189	35442 35442	269 269					150 150								
			OBS	0200	1166 1166	3542 35420	2700		001118	8 0	240	150 150								
			OBS STC	0210	1179 1050	35440 3528	269	9	001030	- ^	10.	150	07							
			OBS	0250	1050	35279	2710	)	0010289		294	149 149								
			STC OBS	0300	0910 0910	3515 35149	272		0009026	5 0	342	149 149								
			OBS STD	0350 040 <b>0</b>	0778 0685	34995 3499	2732	2	000303			148	78							
			OBS	0400	0685	34988	274	5	0007039	<b>9</b> U	422	148 148								
			0B5 0B5	0420 0440	0646 0642	34970 34983	2749					148 148								
			0BS ST0	0490 0500	0505 0506	34870 3490	2759	)	0005489		/. O.C	147	91							
			085	0500	0506	34900	2761		0000405	, 0	485	147	94							
			OBS OBS	0508 0520	0525	34947 34964	2765 2764					147								
			OBS STO	0590 0600		34957 3498	2765 2767		0005039	, ^	537	148	12							
			OBS	0600	0505	34975	2767	,	UUUUU	. 0	1	148	1 1							
			OBS STD		0501	35015 3502	2769 2771		0004796	0	587	148								
			OBS OBS	0700 0740		35017 35005	2771 2773					148.	26							
			QBS	0787	0473	35025	2775					148	29							
			085 STD	0790 0800		35022 3502	2774		0004591	. 0	634	1481								
			0BS 5TD	0800 0900		35016 3502	2774		0004471	0	579	148	32							
			085	0900	0458	35018	2776					1484	+2							
			STD OBS	1000 1000	0440	3502 35017	2778 2778		0004357	0	723	1489								
			STD OBS	1100 1100		3500 35000	2779 2779	1	0004318	0	766	1489	9							
			STD	1200	0405	3499	2779	(	0004310	01	309	1485	9							
			OBS STD	1200 1300	0397	34990 3499	2779 2780		0004300	0	353	1486								
			OBS STD	1300 1400		34990 3498	2780 2781		0004341		396	1488	3							
			OBS	1400	0388	34981	2781					1489	6							
102		(	STD OBS	1500 1500		3498 34984	2781 2781	(	0004328	0 5	39	1491 1491								
													-							

	SHIP	LATITU	DE	LONGITUD	INDCTR	MARSDEN SDUARE	STATE	ON TH		YEAR	CRUISE	ORIGIN A	A TI	ОИ	DEP	[H   DI	MAX. EPTH OF	085	WAVE ERVATIONS	WEA	CODES			NOI	10 N
o.	ODE		1/10		/10 ° Z	10° 1°	MO 0				NO.	NU	JM	BER	8017	2.V	MPL'S		HGT PEP SE	$\neg$	11112 2 2 2		-	NUN	
16	ΕV	4207	N	05013	W	150 20			94 1	1967	L	992	_	<u>~ ا</u>	30		15	16	3 2	X 6	0 3	i	1	00	005
						COLDR	-	DIR.	SPEED	BARC	R	DRY	W	E1 COD	NC NC	5. 00	SPEC	TAL ATIONS							
						CODE	(m)	-	FORCE	(mbs		ULB	80		DEPT	113									
_		,				DT	SD	14	512	16	9 1	56	1	44 6	7	/				_				-,-	
	ESSENGR TIME	CAST	C A R		TH lm)	1 10	s	٠/	SIGM	1 - A	SPECIFIC	VOLUM	y É	₹ △ C DYN, A x 10 <sup>3</sup>	ι,	SDUND		O 2 ml/1	PO4-P	#OTAL-# ug = af/1		NO3-N ng - al/l	SI O4-		pН
H	R 1/10	-							-				-	X 10°	+-		-		+		<u> </u>			+	_
		ļ	_	TD 0	000	0992	331	75	26	17	001	8578	ا 3	0000	1	1488	38		1		1			1	
	19	4	0B		000	0992		950	26							1488	8								
			\$	TD 0	010	1170	35		26		001	.3284	+	001		1496									
			ОВ	_	010	1170 1352	350	080	26°		001	2844		002		1496 1503									
	00	2	0B		020 020	1352		510	26		001	204-	•	002		1503									
	00.	_	ОВ	_	025	1355		526	26							1503									
					030	1330	35		26		001	272	7	004		1503									
			OB	_	030	1330 1324		571 569	26 26							1503 1503									
			OB S		041 050	1264	35		26		001	2658	3	006		1501									
			08		050	1264	35	415	26	80						1501	0								
			οв		055	1264		419	26							1501									
			OB	_	070 075	1208 1211	35 35	341	26 26		003	2276	6	009		1499 1499									
			0 B		075	1211		341	26		00,			00,		1499									
			ОВ	-	080	1198		329	26	87						1499									
			οв	S 0	081	1153		207	26							149									
			ОВ		1090	1153	35 35	209	26 26		00	1216		012		1497 1497									
			08		100	1148 1148		21 209	26		00.	1210.	7	012		149									
			ОВ		108	1167		260	26	87						1498									
			ОВ		120	1166		275	26				7	015		1498									
			0 B		1125 1125	1180 1180	35 35	34 340	26 26		00	1184	3	015	9	1499									
			08		130	1170		330	26							1499									
			08		135	1170		340	26							1499									
			03		1136	1165	35 35	340	26 26		0.0	1150	/.	018	B	1498									
			08		)150 )150	1162 1162		350			00	1100	7	0.0		149									
			ОВ		165	1160		370	26							1499									
			08		170	1150		370	26							1499									
			08		)176 )183	1081 1067		230 225	27 27							1496									
			08		185	1050		198	27							1495									
					200	1000		16	27		00	1023	8	024	2	149									
			OB	-	200	1000		155								149									
			0 E		)208 )230	0940 0900		030		10						149									
			08		231	0880		055								148									
				TD C	250	0853	35	06		26	0.0	0872	9	029	0	148									
			O E	_	250	0853		055		26						148									
			0 E		)260 )288	0813 0657		010		28 37						148									
					300	0640		82		38	00	0755	6	033	1	148									
			OE	s c	300	0640		815		38						148									
			0.6	-	305	0635		830		39						148									
			0.0		)345 )378	0635 0562		910 832		49						147									
			08		3380	0561		835		49						147	95								
			06	35 (	381	0569	34	838	27	48						147									
					0395	0571		880		52						148									
					03 <b>96</b> 0400	0577 0578		880 90		51 52	00	0626	1	040	00	148									
					0400	0578		900		52			,		-	148	06								
			08	35 (	0467	0562	34	958	27	159						148									
					0476	0550		958		60						148									
					04 <b>90</b> 05 <b>00</b>	0510 0508		920 92		162 162	00	0540	12	045	8	147									
					0500	0508		915		162	-0		_			147									

REFER CTRY CODE	ID. NO.	SHIP	LATITUDE	LONGITUDE	DPIFT (NDCTR		ARE		TION T		YEAR	CRUISE NO.	ORIGINATO STA	IION	DEPTH TO BOTTO	DEPTE	0851	WAVE ERVATIONS HGT PER SEA	WEA- THER CODE	CLOUD		5.7	NODC ATION UMBER
																		100 144 100		1176			
							COLOR CODE	_	+	SPEEC OR FORC	4-1-	:		VET COE	NO. OBS. DEPTH	OBCERN	C1AL /ATIONS						
		MESSENG TIME HR 1/10	T NO.	ARD DEPTH	im1	T	*c	s	٠/٠.	SIG	MA-T		C VOLUME	₹ △ E OYN. A x 10 <sup>3</sup>	A. V.	DUND	02 ml/l	PO4~P µg - ot/I	101AL-P µg = a1/1	NO <sub>2</sub> -N µg - ol/l	NO3~N vg - at/l	\$1 O4=\$1 µg = a1/1	рН

OBS	0530	0505	34915	2762			14798
085	0572	0488	34915	2764			14798
OBS	0578	0473	34910	2766			14793
STD	0600	0473	3492	2766	0005092	0510	14797
085	0600	0473	34915	2766			14797
OBS	9628	0468	34915	2767			14799
OBS	0630	0457	34910	2767			14795
OBS	0640	0461	34922	2768			14799
OBS	0650	0461	34922	2768			14800
085	0660	0450	34915	2769			14797
085	0680	0450	34915	2769			14801
085	0690	0430	34872	2767			14793
STD	0700	0430	3489	2769	0004899	0560	14795
OBS	0700	0430	34886	2769			14795
OBS	0732	0426	34878	2768			14799
OBS	0745	0444	34920	2770			14809
OBS	0752	0425	34910	2771			14802
OBS	0790	0440	34930	2771			14815
STD	0800	0440	3493	2771	0004832	0609	14816
OBS	0800	0440	34925	2771			14816
OBS	0812	0440	34925	2771			14818
OBS	0819	0426	34910	2771			14814
085	0860	0424	34915	2771			14820
OBS	0870	0418	34915	2772			14819
STD	0900	0421	3492	2772	0004738	0657	14825
OBS	0900	0421	34920	2772			14825
OBS	0919	0422	34930	2773			14829
OBS	0935	0445	34960	2773			14841
085	0980	0445	34985	2775			14849
STD	1000	0442	3499	2775	0004618	0704	14851
OBS	1000	0442	34985	2775			14851
STD	1100	0420	3497	2776	0004537	0749	14859
OBS	1100	0420	34972	2776			14859
STD	1200	0409	3496	2776	0004596	0795	14871
OBS	1200	0409	34958	2776		•	14871
STD	1300	0394	3496	2778	0004519	0841	14881
OBS	1300	0394	34955	2778			14881
STD	1400	0387	3495	2778	0004555	0886	14895
OBS	1400	0387	34950	2778	000,222	0-00	14895
STO	1500	0380	3495	2779	0004551	0932	14909
OBS	1500	0380	34950	2779	500.551	3,52	14909
		.,,,,	2.750				. + 30 3

SHIP	LATITU	1	LONGITUDE HENDE	MARSDEN SOUARE	"	ON TI		YEAR	CRUISÉ	ORIGINA ST	ATION		DEPTH	MAX. DEPTH OF	1	WAVE ERVATIONS	COD	CODES	:	5	NODC
6 EV	4227	1/10 N (	1/10 =	150 20	05			1047	NO.		) M BER	<u> </u>	3 ( 6 Q	S.War.	<b>†</b>	HGT PER S		11176			IUMBER 000/
of CV	4421	N ( C	05012 W		ATER		/IND	1967 BAR	1	992			2468 NO.	15	23	3 2 1	X4	1 0 3	I	1	0006
				COLO	R TRANS.	DIR,	SPEED OR FORCE	METI (mb)	2 [		W ET BULB	CODE	OBS. DEPTHS	OBSERV	CIAL A TIONS						
				DT	SD	22	512	17	3 1	00	100	4	70								
MESSENGE	CAST	CARD	DEPTH Im)	1 'c	,	٠/	S1G N	A A - T	SPECIFIC	VOLUM	£ 2	E △ D DYN, M x 10 <sup>3</sup>	50	UND	02 ml/l	PO <sub>4</sub> -P	TOTAL-	NOz-N	NO3-N	Sŧ O4-Si	рН
TIME HR 1/10	NO.	TYPE			1		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		MOM	ALY-#107	1	x 103	VEL	OCITY	D7 HIZ1	pg = 01/1	μ <b>g</b> - οΙ/Ι	μg - 01/i	μg = at/t	μg - at/l	pri
			0000	0703	1	. 1	1	0.0	001	0121			1	201							
22	0	ST. OBS	0000	0792 0792		+3 +33	26		100	9424	. 0	0000		806							
		STO	0010	0823	33		26		001	9274		0019		820							
		OBS	0010	0823		514	26							820							
00	2	STE OBS	0020	0865 0865		91 910	26 26		001	6959	0	0037		843							
00	3	0BS	0020	0875		016	26							843							
		STO		0862			26		001	5085	C	0053		847							
		OBS	0030	0862		159	26							847							
		OBS	0039 0041	0830 0851		180	26							836							
		0BS 0BS	0041	0847		217 315	26							845							
		STD		0830			26		001	3434		0082		840							
		OBS	0050	0830		323	26							840							
		OBS	0061	0814		351 432	26							836							
		085 STD	0070	0827 0865	34!		26 26		100	2403		114		844							
		OBS	0075	0865		38	26		001			,		860							
		085	0088	0808		434	26							839							
		OBS	0097	0933		370	26			2270				894							
		ST.0 0BS	0100	0905 0905	34	530	26		001	2379		145		881							
		OBS	0120	0669		485	27							791							
		STO		0646	34	45	27	8 0	001	0093	C	173	14	782							
		0B5	0125	0646		450	27							782							
		OBS OBS	0130 0131	0642 0649		470 470	27							782							
		085	0140	0649		530	27							787							
		OBS	0145	0637		532	27							783							
		ST		0641	34		27		000	9261	C	198		786							
		085	0150	064 <b>1</b> 0674		558	27							786							
		0BS	0156 0166	0620		502	27. 27.							801 781							
		OBS	0191	0634		586	27							792							
		STD		0520	34		27	30	000	8092	0	241	14	745							
		OBS	9200	0520		525	27							745							
		0BS 0BS	0217 0220	0476 0489		528 574	27. 27							730							
		OBS	0230	0506		531	27							746							
		STD		0507	341		27		000	6955	0	279		750							
		OBS	0250	0507		565	27							750							
		085	0256	0507		720	27							751							
		OBS OBS	0257 0279	0528 0528		765 785	27							761 765							
		OBS	0299	0554		812	27							779							
		STE		0544	34		27		000	6599	0	312		775							
		OBS	0300	0544	-	780	27							775							
		OBS OBS	0309 0313	0500 0514		7 <b>4</b> 2	27							758 765							
		085	0320	0482		770								752							
		OBS	0365	0505	34.	892	27	61					14	771							
		085	0380	0544		950								790							
		08s 5 <b>1</b> 0	0391	0527 0527		912	27:		000	5446		1372		784 786							
		085	0400	0527		924	27		500	J - 70		13		786							
		OBS	0440	0484		910	27							775							
		OBS	0486	0489		933	27	56						785							
		STO		0506		97	27		000	4954	C	)425									
		OBS	0500	0506	34	972	2.7	6/					14	795							

	NCE	i I		I		-	AA A P	SDEN	5.7	ATION	TIME				DRICIN	ATDR'S			MA	X.		AVE						1	
	10.	CODE	LATITU	DE L	ONGITUDE	DRIFT	sau		31	IGMI	1)	Y	EAR	CRUISE		TATION		DEPTH TO	DEPT	н /		VA TI	SINC	WEA	CODE			STAT	TION
1	NO.	0001		1/10	• '1/	0 2	10*	1.	MO	DAY	HR,17	10		NO.		UMBER		BOTTO	N S.W.bf		. н	GT PER	SEA	CODI	TYPE A	4.7		NUA	MBE
											1				-				'-										Т
								WA	TER		WINE		BARC		AIR TE	AP. ℃	J.,,,	NO.	T		٦'	•	,			•		'	
								COLOR	TRAT	NS. DIR	ર   ડ	EED DR	METE	R I	DRY	WET	COD!	OBS.	Longra	ECIAL IVATION	ıs								
								CODE	ļ.,,,,	'	FC	RCE	[mbs	, 6	ULB	BULB		J. Crim	· <del> </del>		4								
			,	_	,						Ц.		L																
		MESSENGI TIME		CARD	DEPTH	(m)	1	*c		s ·/	Ι,	IGM A	, [	SPECIFIC	VOLU		A D	sc	UND	02 =		PO 4-	_P ]	OTAL-P	NO2-N	NO3-N	510	4-5:	
	- 1	HR 1/10		TYPE		,					'	i Givin	,	ANOM	ALY-X1	"   "	x 10 <sup>3</sup>	VEI	OCITY	02 "	171	µg - 0		ا/اه - وبر		µg - 01/			ρ
	ſ																	$\top$							1		+		_
	'		' '		,		1		,		4		,			'		1			1		- 1		ı	1	!	- 1	
				OBS	05			509		4970		276						14	+796										
				OBS	05			491		4945		276						14	1795										
				OBS	05			451		4897		276							781										
				08S 08S	05 05			457		4930	-	276							787										
				510				454 457		494( 495		277		000	4.6.7	7 ^	472		+789 +791										
				OBS	06			457		4945		2 <b>7</b> 7		000	467	, 0	473		+791 +791										
				OBS	06			467		4968		77	-						802										
				OBS	05			487		4996	-	77	-					1.	1002										
				OBS	06			487		4960		276						1.4	815										
				OBS	06	78	0	456		4960		77							803										
				OBS	06	91	0	455	3	4950		277							805										
				STD	0.7	00	0	442	3	495	2	277	2	000	456	0 0	519		801										
				OBS	07		0	442	3	495]	1 2	277	2					14	801										
				OBS	07			422		4945		77						14	797										
				OBS	07			466		4998		77							820										
				065	07			468		4998		77							827										
				STD				465		500		77		000	459	9 0	565		828										
				OBS OBS	08			465		4998		77							828										
				OBS	08. 08.			445 455		4995 49 <b>9</b> 7	_	77							824										
				STD	09			450		49 <b>9</b> 1		77		000	452	٠ ،	610		834										
				085	09			450		4997		77		000	402	5 0	610		838										
				STD	10			431		500	_	77		000	439	9 0	655		847										
				QBS	10			431		4996		77		000		, ,	0))		847										
				STO	11			417		500	_	77		000	432	2 0	699		858										
				OBS	11		0	417	3	4996		77			-	•			858										
				STD	12	00	0	404	3	497	2	77	8	000	445	9 0	743		869										
				OBS	12			404	_	4968		77							869										
				STO	130			394		497		77		000	442	4 0	787		881										
				OBS	13			394		4968	_	77							881										
				STD	140			387		496		77		000	4461	0	831		895										
				OBS	140			387		4963		77							895										
				STD OBS	150 150			380 380		496 4961		780		000	447	1 0	876	14	909										

	NCE	SHIP	LATITU	ne l	LONGITUDE	MARSDEN SQUARE	STATION IGM1		YEAR		NATOR'S		DEPTH	MAX. DEPTH	085	WAVE		WEA-	CLOUD			NDDC TATION
DDE	NO.	CODE	•	1/10	1/10	10" 1"		HR,1/10	11.73	CRUISE NO.	STATION NUMBE		BOTTOM	DF S'MPL"		HGT PE		0000	TYPE AM			UMBER
31/8	016	EV	4236	N	05011 W	150 20	05 12		1967	99	923		0534	05	24	4 2	2	X4	0 3			000
						WA		WIND	BARO	•	MP. °C	VIS.	ND. 085.		CIAL							
						CODE	TRANS DIR	FORCE	METER (mbs)		BULB		DEPTHS	OBSERV	ATIONS							
						DT	SD 20	507	149	089	08	9 4	34						,		,	,
		MESSENGA TIME HR 1/10	CAST NO.	CARD	DEPTH (m)	7 70	s ·/	SIGA	^A-T	SPECIFIC VOL		¥ ∆ D DYN. M ¥ 10 <sup>3</sup>		UND OCITY	0 2 ml/1	PD.	01/I	101AL=P +0 - 01/1	NO2=N µg - at/l	NO3=N yg - at/1	\$1 G4-\$1   yg = gt/1	рН
	ŀ	22		0.04	2000	02070			1		1		ļ				l			1		ł
		238	5	0BS			34330 34000		370 820													
		00	1	OBS			33410		60Q													
			•	OBS			34200	_	920													
				OBS			34250		670													
				OBS			34590		800													
				OBS	0068	06190	34170	26	890													
				OBS	0075	06510	34360	27	000													
				OBS			34320		910													
				085			33990		040													
				085			3457		430													
				085			34230		220													
				085	-		34260		200				1.4									
				085		0422 0439	3435( 3433	) 27 27		0000	0.4			693								
				ST OBS		0439	3432			00086	04			700 700								
				0BS		0421	34329	_						694								
				51		0444	3445	27		00077	8.6			712								
				OBS		0444	3445			000111	50			712								
				085		0441	3444							712								
				OBS		0479	3452	-						732								
				085		0479	3457							734								
				OBS		0501	3456	_						744								
				ST		0502	3458	27		00075	16			746								
				085	0250	0502	3458	2 27	36				14	746								
				OBS	0288	0511	3473	27	47				14	758								
				085		0538	3472							770								
				OBS		0523	3474							765								
				ST		0540	3480	27		00064	16			773								
				085		0540	3479							773								
				OBS		0636	34949							817								
				0BS		0482	34856	_						762								
				085		0522	3490			00053	3 <b>3</b>			782								
				ST OBS		0488 0488	3489 3489	27 1 27		00052	23			769 769								
				0BS		0474	3489							765								
				085	-	0474	3491		-					773								
				003	0420	0489	フサブト	- 41	04				14	112								
				OBS	0435	0462	34910	27	47				1 /-	765								

ID. NO.	SHIP	LATITUD	1/10 LC	NGITUDE 5	MA SC	RSDEN WARE		TION (GMT)	HR,1/10	YEAR	CRUISE NO.		ATOR'S TATION IUMBER		DEPTH TO BOTTO	UEP1.	H 08	WAVE SERVAT	IDNS	WEA THER COD	CODE	5	5	NODC TATION UMBER
8016	EV	4245	N 0	5010 W	15	0 20	05	13	012	1967		99	24		0128	01	23	3 3	3	Х4	0 3			0008
						WA	TER		WIND	BARC		AIR TEA	AP. ℃	T	NO.	1	_	]	,	, ,,			1	0000
						COLOR	TRAN!	DIR,	SPEED OR FORCE	METE	R I	DRY ULB	WET	CODE	DEPTHS	1 coreen	ECIAL VATIONS							
						OT	SE	22	_	+		78	078	3	21			-						
1	MESSEN GR	CAST	CARD				1		1	1.0		. VOLU	1 -	Δο	<del>'</del>			1	_		Ι	T		_
	TIME :	NO.	TYPE	DEPTH (m)		ı "C	3	•/	SIGA	VA-T		ALY-XIC	7 0	YN. M.		OCITY	0 2 ml/		4-P -01/I	1074 L-F	ND2-N			ρН
						-							+					_				<u> </u>		
			STD	0000		0314	32	86	26	19	001	837	5 0	000	14	603		1			1		1	'
	012	2	OBS	0000		0314		858	26	19						603								
			OBS	0003		0314		840	26	17					14	603								
	003	3	OBS	0006		0269		870	26						14	585								
			OBS	0008		0279		880	26						14	590								
			STD	0010		0260		87	26		001	782	1 0	018	14	581								
			085	0010		0260		874	26							581								
			STD	0020		0152		93	26		001	659	B 0	035		536								
			OBS	0020		0152		934	26							5 36								
			OBS	0027		0034		118 12	26		1					487								
			STD 085	0030					26		001	454	/ 0	051		489								
			OBS	0035		0038		117	26							489								
			085	0048		0019		292	26							496								
			STD	0050		0019		30	26		001	2001		0.70		468								
			085	0050		0015		301	26 26		001	288	9 0	078		471								
			085	0056		0065		297	26							471								
			085	0068		0023		350	26							508								
			OBS	0070		0023		370	26							492								
			STD	0075		0040		43	26		001	2180		110		491								
			085	0075		0040		428	26		001	E 10(	, 0	- 10										
			OBS	0082		0040		430	26							502								
			085	0095		0060		441	26							514								
			STD	0100		0090		56	26		001	1444	. ^	139		514								
			085	0100		0090		562	26		001	+ 444	• 0	<b>4</b> ⊃ ∀		530								
			085	0110		0105		553	26							539								
			085	0115		0097		590	26							536								

CTRY II	D.	SHIP	LATITU	DE 1/10	LON	1/10 K	MARS SOU	ARE		(GM	TIME TI THR,1/10	YEAR	CRUISE NO.		ATDE	DN	DEPTH TO 80TTOA	DEPT	H (	DBZER	VAVE RVATIO	THER CODE	C	ODES			NODC STATION NUMBER
31,80	16	Εv	4256	N	05	010 W	150	20	Q 5	13	022	1967	1	99	25		0064	00	2 0	0	2 3	Х4	0	3	1		0009
								WAT	ER		WIND	BAR	0- [	AIR TEA	MP. 1	VIS.	NO.	Ι	ECIAL	7							
								COLOR	TRAN Im I	r DIE	R. OF	D MET	ER I	DRY	BU BU	ET CODE	OBS. DEPTHS	LOSSET	IVA TION	2.5							
								DΤ	S	1	8 51	2 09	5 0	78	0	78 3	11										
	- 1	AESSENGI TIME HR 1/10		CA:		DEPTH (m)	Ţ	°C		٠4.	\$10	GMA-T		14LY_11		₹ △ D DYN. M x 10 <sup>3</sup>		UND OCITY	02 m	171	PO 4-	[OTAL - P μg = o1/I		2=N - ot/l	NO3=N µg = ot/l	SI 04-	
				s	TO	0000	0	524	33	322	2	626	001	769	1	0000	14	696									
		0.2	2	ОВ	S	0000	0	524	33	321	9 2	626					14	696									
				0.8	S	0007	0	523	33	321	0 2	625					14	697									
				S	TD	0010	0	500	33	317	2	625	001	780	9	0018	14	687									
		0.0	0	OВ	S	0010	0	500	33	317	0 2	625					14	687									
				08	S	0012	0	443	33	330	0 2	641					14	666									
				OB	S	0019	0	448	33	336.	2 2	646					14	670									
				S	TO	0020	0	428	33	40	2	651	001	534	8	0034	14	662									
				0 B	S	0020	0	428	33	340		651					14	662									
				S	TD	0030	0	378		341		657	001	479	8	0049	14	643									
				08	S	0030	0	378	33	341	0 2	657					14	643									
				0 B	S	0035	0	338	33	349	5 2	667					14	628									
				08	S	0040	0	354	33	354	5 2	670					14	636									
				08	S	0045	0	320	33	353	9 2	672					14	622									
				S	TD	0050	0	318	3.3	357	2	675	001	306	8	0077	14	623									
				08	S	0050	0	318	33	356	9 2	675					14	623									

REFERENCE SHIP LATITUE	DE LO	NGITUOE	[ [ SC	RSDEN U ARE	STATION	111	YEAR	CRUISE	STAT	ION	OEPTH TO	MAX. OEPTH OF S'MPL'S	OBSE	WAVE RVATIONS	WEA- THER CODE	CLOUD		S	NODC TATION UMBER
DOE NO.	1/10	1/10	Z 10°	1.	MO DAY	HR,1/1	0	NO.	NUM	BEX		2.WhF.2		GT PER SEA					
318016 EV 4438	N 04	920 W	14	9 49	05 13	122	1967	9	926		0062	00	14	2   2	X1	1 0 1 3	1		0010
, . , . ,				WAT	ER	MINO	BAR	O- AIR 1	EMP.	*C VIS.	NO.	SPEC	IAL .						
				COLOR	TRANS. C	IR. O	R /				OBS. DEPTHS	OBSERVA	TIONS						
				DT	SD 1	4 51	0 14	6 094	0	83 6	13								
MESSENGR CAST	CARD TYPE	DEPTH 6	m1	ī °C	s •/	.   5	GMA-T	SPECIFIC VO		∑ ∆ D OYN, M x 10 <sup>3</sup>	VELO		O <sub>2</sub> ml/l	PO4-P µg = 01/1	101AL-P	NO2-N µg - ol/l	NO3-N ug - 01/l		рН
718 7 17											1							1	
,	STD	000		0439	327.		597	00204	82	0000		654							
122	OBS	000		0439	327		597					654							
	OBS	000		0439	327	-	597			00.30		656							
	STD	001		0428	327		598	00203	82	0020		651							
002	OBS	001		0428	327.		598					651 652							
	OBS	001		0428	327	-	598					618							
	0B5	001		0347	327		2606					615							
	OBS	001		0339	327. 327:		2606 2611	00191	27.	0040		601							
	STD	002		0306	328		2625	00171	) **	0040		566							
	OBS	002		0220	328		2630					559							
	OBS	002 003		0219	329		2634	00169	27	0058		568							
	STD	003		0219	329		2634	0010	, , ,	0000		568							
	085	003		0150	329		2640					538							
	085 085	003		0147	332		2660					541							
	OBS	003		0155	333		2670					547							
	510			0159	333		2671	00134	+15	0089	14	550							
	OBS	005		0159	333		2671					550							

REFERENCE CTRY ID. CODE NO.	SHIP	LATITUI	DE 1/10	LON	GITUDE * 1/10	DRIFT	MARS SQU	ARE	STATI	ON TIM		YEAR	CRUI	ORIGIN SE	NU MB	N.	$\neg$	OEPTH TO MOTTOM	MAX OEPTH OF S'MPL	0	BSER	A VE VA TIONS	WEA THER CODI		S		ST	ODC ATION IMBER	
-				0.1.6		-						1967	1	90	27		10	384	0.3	15	5 2	2	x_	0 3				0011	1
31 8016	Eν	4435	N	041	9055W		149	WA.			IND	_	_	A IR TE			-1	NO.	-		٦' -	, ,							
								COLOR			SPEED	BAR!		DRY	WE	_	V15	085.	OBSER	ECIAL VATION	s								
								CODE	[m]	DIR.	FORCE	(-1)		BUTB	801			CEPTHS											
								DT	SD	16	518	13	9	089	0	8	6	25			1								
							$\overline{}$		1		Ī	1	1	IFIC VOL		Σ <u>/</u>	70		UND			PO 4-P	10141~	NO2=N	NO	3=14	5104-51		3
	MESSENC	CAST	CA		DEPTH	lm1	T	*C	\$	٠/٠٠	SIGA	V A -1	ANI	DMALY-X	10°	OYN	I, M. 10 <sup>3</sup>		OCITY	0.3 m	VI	µg = 01/1	µg = a1/1			- 01/1	μg = 01/i	ρН	c
	HR 1/1										-				-		-	-		-	-			-					
		1 1											ļ					١,,,		l	1		l	ı	I				, ,
			S	TD	000			310	32			20	0.0	01825	51	00	00		601										
	13	3.2	08		000			310		870		20							603										
			08		000			311		850		18	0./	103	. 0	00	18		587										
				TD	001			275	32			19	Ų	0183	48	00	10		587										
	0.0	03	OE		001			275	32	820		37	0.0	0166	5.6	0.0	36		508										
				TD	002			090		877		37	0,	0100		•			508										
			08	_	002			069		890		39							499										
			OE	-	002			1065		891		39						14	498										
				5 T D	003			1055	32			41	0	0162	50	00	52	14	494										
			OE		003			055		905	26	41						14	494										
			OE		004			015		920	26	44							+478										
				510	005			029	32	97	26	50	0	0153	5.3	00	84		+460										
			08		009	50	-0	029	32	970	26	50							+460										
			0.6	35	006	50	- (	0025		010		53				- 1			+464										
			5	STD	00	75		ひりり	33			58	0	0146	33	Q I	21		453										
			OE	35	00			055		049		58	_		• •	۵.1	1		4453										
			9	5 T D	010			070		10		62	0	0142	12	0 1	157		4451 4451										
				35	010			070		095		62	_	^ 1 3 B		0.1	192		4451										
				STD	01.			0079		14		666	U	0138	60	0 1	192		4451										
				BS	01			0079		135		566 567	0	0137	2.5	0.3	227		4457										
				STD	01			0075 0075		15 153	-	567	V	0157	25	0.			4457										
				BS.	01			00 86 00 86		155	_	568							4453										
			_	BS	01 01			30 86 30 76		200		571						1	4462										
				BS STD	02			0075		69		703	0	0103	83	0.	487		4542										
				85 85	02			0075		690		703	-					1	4542										
				STD	02			0311		35		738	0	0072	33	0.	33]	1 1.	4663										
				BS	0.2			0311		353	2	738							4663										
				BS	0.2			0311	34	370	2	739							4665										
				BS	0.2			0314	34	440	_	745							4668										
			0	BS	0.2	69		0322		441		744							4672										
			0	B5	02			3322	_	445		744							4673										
				BS	0.2			0326		468		746	_	0063	2.6	0	4		4677 4686										
				STO	03			0340		53		749	0	0062	30	U	365		4686 4686										
				BS	03			0340		528 640		749 755							4708										
			O	BS	Ų 3	40		0372	34	.040	2	ود،						-											

RENCE ID.	SHIP	LATITU	30	LONGITUD	E FE	MARSOEN SQUARE	STATION TI		YEAR		ATOR'S	_	OEPTH TO	MAX.	0.6	WAVE SERVATION		EA-	CLOUD			NOD	c
NO.	CODE	•	1/10	• 1	E PROPE	10" 1"	MO DAY H				STATION NUMBER		воттом	S'MPL'		HGT PER	1	DDE	TYPE AMI	[		NUMB	
8016	5 EV	4432	N	04850	w	149 48			967		28		1646	15	_ 15	2 2	· >	(1	0 3			00:	1 2
						COLOR	<del>- 1 -</del>	SPEED	BARO		MP. °C	VIS.	NO. 085.	SPE	CIAL								
						CODE	TRANS. DIR.	FORCE	(mbs)		BULB	CODE	DEPTHS	OBSERV	A TIONS								
		, ,				OT	SD 16	\$24	152	078	072		43										
	MESSENGI TIME	of NO.	CARD	DEP	TH (m)	т *с	s *4.	SIGM	А-Т	SPECIFIC VOLL	ME S	△ D.	sou	INO	0 2 m1/	PO4-P	TOTAL		NO <sub>2</sub> =N	NO3-N	SI O.4-5		ph
	HR 1/10	-						-	-		, x	( 103	VELC	CIT		νg - σ1/	19-0	11/1	µg - αI/I	μg - at/t	μg - σ1/	1	_
	l		ST	D 00	000	0161	3288	263	2	001710	. j	000	14	536		1							
	14	6	085	01	000	0161	32875	263		001.10		000		536									
			ST		010	0161	3287	263		001714	2 0	017		538									
			0BS ST		010 020	0161 0156	32870 3286	263 263		001715	( 0	03/		538									
	0.0	3	085		020	0156	32864	263		001715	6 01	034		537 537									
		-	ST		30	0070	3297	264		001586	6 00	051	14										
			OBS	0.0	030	0070	32966	264				-		502									
			51		050	0015	3300	265		001533	7 00	082		480									
			085		050	0015	32998	265		003400				480									
			5 <b>1</b> 085		075 075	-0010 -0010	3 3 0 5 3 3 0 4 8	265 265		001483	1 0	120	144	474 474									
			ST		100	-0085	3315	266		001372	0 0	155	144										
			OBS	0	100	-0085	33152	266		-			14										
			OBS		110	-0038	33171	266					144										
			51		125	-0076	3322	267		001322	1 0	189	144										
			085 STI		125 150	-0076 -0099	33220 3332	267 268		001239	7 0	201		454									
			085		150	-0099	33315	268		001239	/ 0.	221	144										
			ST		200	0150	3376	270		001035	1 0.	278		576									
			085		200	0150	33760	270				- , 0		576									
			OBS		211	0216	33806	270						608									
			085		220	0109	33728	270					14										
			OBS		250 250	0145 0145	3393 33930	271		000904	1 0.	326	149										
			085		265	0419	34310	272					149										
			085		280	0419	34324	272					14										
			OBS		290	0429	34363	272	7				14										
			511		300	0415	3441	273		000786	5 0	369	14										
			0B5		300 315	0415 0459	34413	273					14										
			085		330	0475	34514 34615	273 274					14										
			OBS		340	0505	34620	273					14										
			035		380	0507	34666	274					14										
			ST		00	0491	3464	274		000712	7 04	+44	147	767									
			OBS		100	0491	34640	274					147										
			0B5		15 75	0490 0334	34643 34550	274					147										
			STI		00	0342	3465	275		000552	2 05	07	147										
			OBS	05	00	0342	34647	275		2			147										
			OBS		20	0375	34690	275					147	740									
			085		40	0365	34660	275					147										
			OBS OBS		70	0363 0350	34650 34676	275					147										
			51		00	0357	3469	276 276		000544	0 05	62	147										
			085		00	0357	34690	276			_	U L	147										
			095		30	0396	34769	276	3				147										
			510		00	0408	3479	276		000533	2 04	16	147										
			085		00	0408	34793	276					147										
			085 085		70	0454 0441	34860 34857	276 276					148										
			ST		100	0441	3487	276		000526	8 01	69	148 148										
			OBS		00	0443	34871	276		330720			148										
			5 <b>T</b> [	0.9	00	0455	3490	276		000528	3 07	721	148										
			OBS	0.9	00	0455	34903	276	7				148	110									

ID.	SHIP	LATITU	DE 1/10	LONG	GITUDE 11/10	DRIFT	MARS SOU	ARE		ON T	IME IR,1/10	YEAR	CRUIS NO.	E	ATOR'S TATION NUMBER		DEPTH TO BOTTO	DEFI	1 OB	WAVE SERVATE	 WEA- THER CODE	COL	SBC			NODC TATION NUMBER	
	'		1				ſ	WA	TER	, ·	WIND	BARC	1	AIR TE	MP. °C	T	NO.	100	ECIAL	]							
								COLOR	TRANS.	DIR.	SPEED OR FORCE	M ETE (mbs	R	DRY BULB	WET BULB	COD	OBS. DEPTH	00000	VATIONS								
																				<u> </u>					_	T	_
	TIME	CAST	CAR		DEPTH	(m )	т	*c	2	٠/	SIGA	I-AA		MALY-X	07 D	∆ D N, M x 10 <sup>3</sup>		UND	O2 m1/	PO 4	101A L = P µg - a1/1			NO3-N og - al/l			
	HR 1/1	1					-		1								1							-			
			S	TD	100	0	0	455	34	91	27	68	00	0533	6 0	774		4856									
			OB.	5	100	0	0	455	34	910	27	68						+856									
			5	TD	110	0	0	447	34	91	27	69	0.0	0532	2 0	828		4869									
			ΟВ	S	110			447		912								4869									
				TΟ	120			446	34		27		00	0527	0 0	8 8 1		4886									
			OB.		120			446		931								4886									
				TD	130			442	34			71	00	052	4 (	933		4901									
			οв		130			442		937								4901									
			_	TD	140			434	34			72	00	0525	12 (	1986		4914									
			οв		140			434		939		72				0.7.0		4914									
			S	TD	150			427	34			73	0.0	0524	F / .	039		4928									
			ОВ	S	150	0	0	427	34	940	27	73					1	4928									

ERENCE I ID. E NO.	SHIP	LATITU	DE I	ONGITUDE	MARSDEN SQUARE	STATION TI	ME YEAR	CRUISE	RIGINA 12	TOR'S		DEPTH	MAX. DEPTH	ОВ	WAVE SERVATION	ıs	WEA-	CLOUD			NODC TATION
E NO.	CODE	•	1/10	1/10	10" 1"	MO DAY H		NO.		UMBER		BOTTOM	OF S'MPL"	1		- 1	CODE	TYPE AM	r .	4	UMBER
18016	EV	4430	N C	14836 W	149 48		58 196		992			2286	15	16	4 2		X 1	0 3			001
					WA		SPEED BA	KU	IR TEM	P. °C WET	VIS.	NO. D85.	SPE								
					COLOR	TRANS. DIR.	OR (m			BULB	CODE	DEPTHS	OBSERV	ATIONS							
,					DT	SD 16	522 1	56 10	06	100	6	55									
	MESSENGR	CAST NO.	CARD	DEPTH (m)	T °C	s */	SIGMA-T	SPECIFIC	VOLUN	ιε Σ DΥ	Δ D.	SOL		D2 ml/l	PO4P	то	TA L-P	NO2-N	NO3-N	5104-5	
	HR 1/10	NO.	ITPE					ANOMA	LY-X10	Х	103	VELC	CITY	02	yg - 01/	ן ע	- 01/1	μg - at/l	yg - 61/l	υ <b>ο - ο</b> ι/ί	PH
								1		1			1								
	138		5T0 085	0000	0514 0514	3354 33535	2652 2652	0015	211	. 00	000		696 696								
	100		STE		0362	3339	2657	0014	4756	0.0	015		633								
			OBS	0010	0362	33394	2657	• • •					633								
	004		OBS	0011	0295	33577	2678					14	606								
			085	0013	0343	33590	2674	001		0.0			628								
			STE 085	0020	0341 0341	3361 33610	2676 2676	0012	2944	, 00	29		628								
			085	0027	0293	33630	2682						628 609								
			STO	0030	0338	3367	2681	0012	2456	00	42		629								
			OBS	0030	0338	33672	2681						629								
			0B\$	0032 0039	0275 0411	33650 33806	2685						602								
			0BS	0039	0250	33863	2685 2704					146									
			STD	0050	0253	3389	2706	0010	0098	00	64	149									
			OBS	0050	0253	33890	2706			-		149									
			OBS	0052	0229	33902	2709					149									
			085	0065	0225	34037	2720	2225				144									
			STD OBS	0075 0075	0253 0253	3408 34078	2721 2721	0008	3690	00	88	146									
			STD	0100	0295	3427	2733	0007	7612	0.1	108	146	606 530								
			OBS	0100	0295	34270	2733			•	•		630								
			OBS	0102	0285	34290	2735						627								
			OBS STD	0110 0125	0300 0375	34330 3448	2737 2742	0006	u n n	0.1	1 2 4	146									
			0B\$	0125	0375	34475	2742	0006	0033	. 01	126	146 146									
			STD	0150	0396	3454	2745	0006	576	01	43	146									
			085	0150	0396	34540	2745					146	585								
			OBS	0168	0397	34573	2747					146									
			08s 5 <b>T</b> D	0182 0200	0347 0398	34604 3470	2755	0005		0.1		146									
			0B5	0200	0398	34700	2757 275 <b>7</b>	0005	444	0.1	73	146 146									
			OBS	0205	0370	34730	2762					146									
			085	0215	0427	34733	2757					147									
			OBS	0220	0414	34738	2758					147									
			OBS STD	0239 0250	0440 0425	34771 3475	2 <b>7</b> 58 2758	0005	306	0.2	00	147									
			085	0250	0425	34751	2758	0000	1393	02	.00	147									
			085	0253	0419	34777	2761					147									
			OBS	0261	0437	34789	2760					147	724								
			085	0269	0430	34795	2761					147									
			0B\$ 0B\$	0286 0294	0450 0425	34817 34870	2761 2768					147									
			STD	0300	0425	3488	2765	0004	824	Ω2	25	147									
			OBS	0300	0456	34880	2765		7			147									
			OBS	0308	0451	34862	2764					147	739								
			OBS	0338	0469	34860	2762					147									
			08S 08S	0340 0351	0445 0438	34863 34873	2765 2767					147									
			STD	0400	0457	3491	2768	0004	714	0.4	73	147									
			085	0400	0457	34911	2768	2004		٠.		147									
			SID	0500	0446	3492	2770	0004	612	03	20	147									
			085	0500	0446	34922	2770					147									
			STD	0600	0432	3492	2771	0004	546	0.3	66	147	780								

EFER	ENCE	SHIP			- E	MA	RSDEN	STAT	ION II		· · · ·		ORIGIN.			DEPTH	MAX.		WAVE	2015	WEA-	CLOUD			ODC
RY	ID.	CODE	LATITU		NGITUDE SO		UARE				re a r	CRUISE NO.		TATION UMBER		OF NOTTOR	S'MPL		HGT PER		CODE		_		U M 8 E R
DE	NO.	-		1/10	1/10	10.	1.	MO	DAY H	R,1/10		140.	-	OWNER	-		3 MFL	3 UIE	KGI FER	1 36 4	+	1111	-		
					1				, Ц.								,	<u> </u>	1				I	j	
							WA	TER		VIND	BARC	)• <del> </del>	AIR TEA		VIS.	NO. OBS.		CIAL							
							COLOR	TRANS.	OIR.	SPEED	M ETE		DRY BULB	WET	CODE	DEPTHS	OBSERV	/ATIONS							
							0000	-	-	FORCE	-				+		<del> </del>	_							
								Ļ		<u> </u>	L.,			. ,		_	1		1						
		MESSENGR		CARD	DEPTH (m)		т *с	,	٠/	SIGM	A = T		c voru	ms   r	YN. M.		UND	O 2 ml/l	PO 4		TOTAL-P	NO2-N	NO3-N		pН
		11ME HR 1/10	Y NO.	TYPE	001111	1		'	•••	3,0		ANDA	4 A L Y - X 1	۰ ا	x 10 <sup>3</sup>	VEC	OCITY		NO - 1	1./4	µg - 01/1	yg - al/l	µg - ot/!	μg - ot/li	
		71K 1710	1	-	-	+-		1		1				-						$\neg$					
			I	l	1	1		1		1	,			,		1	- 1		1						
				STD	0700		0416	34	92	277	13	000	)446	8 (	411	14	790								
				085	0700		0416		922	277	13					14	790								
				OB5	0766		0408	34	952	277	16					14	798								
				OBS	0774		0421	34	937	277	74					14	804								
				085	0781		0412	34	936	277	4						+802								
				STD	0800		0413	34	94	277	74	000	)441	9 (	)455		+805								
				OBS	0800		0413		937	277							805								
				085	0870		0410		951	277							+816								
				OBS	0882		0395		929	277							811								
				SID	0900		0397		94	277		0.0	0433	8 (	)499		+815								
				OBS	0900		0397		935	277	-		0 / 2 0	-	55.5		+815								
				STD	1000		0397	34		277		00	0430	5 1	)542		+832								
				OBS	1000		0397	_	952								4832 4847								
				085	1089		0397		955			0.0	0429	. 1	3585		4846								
				STD	1100		0389	_	95	277		00	0429	Τ.	J J B D		4846								
				OBS	1100		0389		953 95	27		0.0	0432		0628		4861								
				STD	1200 1200		0385		954	_		00	0422	. **	J U Z U		4861								
				OBS	1300		0377	_	96	278		0.0	0430	14	0671		4874								
				STD 085	1300		0377	_	955			50	J . J C	, .			4874								
				510	1400		0374		96	278	-	0.0	0433	3.7	0714		4890								
				085	1400		0374	_	957			- 0			'		4890								
				STD	1500		0371		96	278		00	0437	76	0758		4905								
				OBS	1500		0371		958							1	4905								

IO.	SHIP	LATITU	DE	LONGITUOE	MARSDEN SOUARE	ITAT2	ON TI	ME	rear.	ORIGI CRUISE	NATOR*	•	OEPTH TO	MAX. DEPTH	085	WAVE SERVATIONS	WEA	CLOUE		,	NDOC TATIO
NO.		•	1/10	1/10	≥ 10° 1°	MO D	AY H	R.1/10		NO.	NUM8I	R	BOTTON	S'MPL'S	DIR.	HGT PER SE	0000			N	UMBE
3016	EV	4427	N	048215W	149 48				967		930		3200	15	16	2 2	X 1	0 3			001
					COL	ATER OR TRANS.	OIR.	SPEED	BARG	)• <u> </u>	EMP. °C	vic	NO. OBS.	SPEC	IAL						
					COE	E (m)	UIK.	FORCE	(mbs	BULB	BUL	В	DEPTHS	OUSERV	110113						
_				. ,	D1	SD	16	520	15	2 100	0.9	<del></del>	46						,		,
^	MESSENGR TIME o	CAST NO.	CARD	OEPTH -	m) 1 °C	5	٠/	SIGMA	A-T	SPECIFIC VOL	UME 1107	Ž ∆ O DYN, M	SOI	UNO	O 2 ml/l	PO 4~P	101AL-F	NO2-N	NO3-N	5104-51	١,
۲	4R 1/10			-	_						-	x 10 <sup>3</sup>	AFE	DCIII		νg • φ1/1	yg • ot/l	νg - α1/l	µg - at/l	yg • at/l	'
1			ST	D 0 <b>00</b>	0 0266	331	/.	264	_	00158	E 1	0000	1.6	E 0 (							
	174		085	000				264		00178	51	0000		586 586							
			ST					265		00152	78	0016		586							
			OBS	001				265	1				14	586							
	003		OBS	001				266						512							
			ST					266		00137	98	0030		529							
			OBS	002				266						529							
			OBS ST					267 267		00134	50	0044		546 534							
			OBS	003				267		00104	J ()	0044		534							
			OBS	003				267						478							
			ST					269	2	00114	45	0069		457							
			OBS	005				269						457							
			0BS	006				270						539							
			ST	007 007				269 269		00108	0.3	0096		658							
			085	007				269		00100	0 5	0030		645 645							
			085	008				270						638							
			OBS	009	0 0365	341	10	271	4					657							
			ST					271		00094	63	0122	14	680							
			OBS	010				271						680							
			OBS ST	010				272 272		00082	20	01//		630							
			OBS	012				272		00002	20	0144		682 682							
			ST					273		00074	7.8	0164		646							
			OBS	015	0 0310			273						646							
			OBS	016				274					14	651							
			085	017				274						685							
			OBS	019				274		2-212		- 1		679							
			ST QBS	020				274 274	-	00063	)5	0198		684							
			085	020		345		275						684 677							
			OBS	024				275						710							
			ST					275		000536	52	0427		706							
			OBS	025				275					14	706							
			OBS	025				276						700							
			ST					276		00052	24	0254		734							
			0B5	030				276	-					734							
			0BS	032		347		276 276						722 <b>7</b> 24							
			OBS	034		349		276						766							
			OBS	035		349		276						762							
			OBS	037.		349		276						776							
			ST					276		00048	52	0304		778							
			OBS	040				276						778							
			OBS OBS	042		349		276	-					771							
			571					276		00045	3.6	0351		784 780							
			085	050		349		277		00040	, ,	J J I		780							
			STI			349		277		00043	73	0395		787							
			OBS	060	0447	349		277						787							
			085	069	0420	349	4.1	277	4					790							

REFERE	NCE	SHIP				-=	MAR			ION T				ORIGINA	TOR'S		DEPTH	MAX.		WAVE		WEA-	Cronp			NODC
	10.	CODE	LATITU		LONGITUDE	DRIFT	sQu			(GMT)		YEAR	CRUISE		NOITAT		to MOTTOM	OF		SERVATIO		HER	CODES			MOITAT2
300	NO.	-		1/10	1/1	0 =	10°	1.	MO I	DAY	R.1/10		NO.	N	UMBER			S'MPL"	DIE	HGT PER	SEA	.001	TYPE AM			40.4.164
										- 1	1							1	1							
								WA	TER	٧	VIND	BARO		AIR TEM	1P. °C	VIS	NO.		CIAL							
								COLOR	TRANS.	DIR.	SPEED	METE		ORY BULB	WET	cond	OBS. DEPTHS		ATIONS							
								COOL	14117	-	FORCE	(mbs	<u>'</u>	,010	0010	-										
									ļ	Ш.	l						,									
		MESSENC		ÇARI		(m)	١,	*c	١,	٠/	SIGM	1		C VOLUA		∆ 0 N. M	sou	DNL	0 2 ml/l	PO4-	PTOTA	L-P	NO2-N	NO3-N	\$104-5	i <sub>R</sub> H
		HR 1/1	+ NO.	TYPE	0.,,,	Ont	'		'	•••	310 m	~-1	ANDA	4 A L T - I 1 0		103	VELO	CITY	0.7 41171	νg - α!	- ود ۱۱	61/1	υg - σ1/1	μg - αt/l	µg − at ′	1 87
		_	1				1		1								$\top$									
		1	1	1	ı		1		1		1	ı			,		1			1	1	,	'		1	,
				ST	D 07	00	0	403	34	95	277	76	000	410	9 0	438	14	785								
				089	0.7	00	0	403	34	950	277	76					14	785								
				ST	D 08	00	0	408	34	96	277	7 7	000	418	9 ()	479	14	804								
				089			0	408	34	960	277	77					14	804								
				S T	0 09	00	0	402	34	96	27	77	000	420	5 0	521	14	818								
				OBS	09	00	0	402	34	961	277	7 7					14	818								
				51			0	402	34	97	27	78	000	)423	3 0	564	14	835								
				089				402	_	970	27						14	835								
				51				391	34		271		000	0419	1 0	506		847								
				089				391	-	970	271							847								
				\$1				381		97	278		000	0415	7 0	647		859								
				085				381		970	278							859								
				\$1				379	-	97	278		000	0421	9 0	689		875								
				089	_			379		970	278					_		875								
				51				380		98	278	_	000	)428	2 0	732		892								
				089				380		975	278					_		892								
				\$1				380	34		278		000	)433.	2 0	775		909								
				089	15	00	0	380	34	980	278	31					14	909								

RENCE	SHIP	LATITU	DE	LON	GITU <b>D</b> E	RIFT VCT#	MARS SQU	DEN ARE	STATI	ON TI	ME	YEAR		ORIGIN.			DEPTH TO	MAX. DEPTH	ORS	WAVE SERVATIONS	WE		CLOUD		T	NOD	c
NO.	CODE	•	1/10		1/1	DRIFT	10°		wo]g		R.1/10		CRUIS NO.	S 3	TATION R38MU		BOTTOM	OF S'MPL'S	DIR.		SEA CO		TYPE AM	1		NUM	DN BER
8016	EV	4424	N	048	307 V	N	149			3 1	88	1967		99	31		3347	15	15	5 3	×	1	0 3			00	15
								COLOR			IN D	BAR	U*	AIR TEA		vis.	NO. 085.	SPEC	CIAL								
								CODE	TRANS.	OIR.	SPEED OR FORCE	METI METI		DRY BULB	BULB	CODE	DEPTHS	OBSERV	A TION S								
_		,						DT	SD	16	525	15	6	120	116	6	52										
٨	MESSENGR TIME	CAST	CAR		DEPTH	(m)	т	*c	5	٠/	SIG	MA-T	SPECIFI	C VOLU	ME E	A D	501	DNL	O2 ml/l	PO4-P	TOTAL	- P	NO <sub>2</sub> -N	NO3-N			рΗ
1	HR 1/10			-			<del> </del>		-		-				•	x 10 <sup>3</sup>	VELC	CITY		µg - 01/1	νg - 01	1/1	μg - αI/I	µg - 01/1	n8 - a	1/1	-
		1	) S1	rD	000	n n	0	333	330	10	26	28	00	1746	,	000	1 14	613		-			İ				
	188	3	085		000			333	330			28	00.	1740	+ 0	000		613									
			0B		00			021	345			60	00	1446	3 0	016		908									
			SI		001			021 053	345			60 65	00	1407	8 0	030		908 922									
	003	3	089		00			053	347		26	65					14	922									
			083 S1		00			067 005	347 347		26	62 74	00	1323	2 0	044		928 907									
			089		00:			005	347		26		00.	د ۲۲ د	- U	<b>√</b> → 4		907									
			089		003			929	347			86					14	879									
			089 S1		004			050 044	348		26 26	80 81	001	258	5 N	0 70		928 927									
			089	5	00	50		044	348		26		001		- 0	J 10		927									
			089 S1		00			9 <b>7</b> 0 9 <b>7</b> 5	348		26		001	1.20		1.00		903									
			083		00.			975	349		26 26		001	1129	0 0	100		906 906									
			085		008			058	352		27	05					14	942									
			089 089		009			016 130	351 352		27 26							926									
			51		010			095	352			97	001	122	2 0	128		9 <b>6</b> 9 957									
			085	5	010			095	352		26	97					14	957									
			089 089		01:			031 034	351 351		27	03						935 938									
			S	rĐ	01.	25	0	961	350	8	27	10	000	999	7 0	154		911									
			0B9		012			961 969	350 351		27							911									
			S1		015			910	350		27 27		000	958	5 0	179		915 896									
			085		015			910	350		27	15					14	896									
			0BS		019			772 799	348 349		27 27		000	891	5 O	425		848 860									
			089	5	020	0 (	0	799	349	80	27	22						860									
			085 085		023			571 583	348 348		27 27							815									
			089		024			562	348		27							821 813									
			51		025			690	349		27		000	703	6 0	465		827									
			089 089		025			690 698	349		27 27							827 831									
			085		029	90		461P				62P					140	0 0 1									
			ST		030			568	348		27	53	000	007	5 0	298		786									
			089 089		030			5 <b>6</b> 8 523	348 348		27 27							786 768									
			089	5	032	20	0	529	348	31	27	53					14	772									
			085 085		034			455 493	347 348		27 27							746 764									
			083		03			499	348		27							770									
			OBS		037			483	348		27	61					14	764									
			085 ST		039			497 485	348 348		27 27		000	518	7 0	354		772 768									
			085	,	040	0	0	485	348	91	27		000	0		- ) 4		768									
			089		041			461	348		27							761									
			089 089		044			549 4 <b>8</b> 9	350 349		27 27							804 782									
			085	,	049	90	0	479	350	05	27	72					14	782									
			S1 089		050			500 500	350 350		27 27		000	460	5 0	403		793 793									
			085		052			506	350		27							193 798									
			ST		060			476	350	0	27	72	000	449	7 0	448	14	799									
			OBS	,	060	0	04	+76	350	00	27	72					14	799									

	SHIP	LATITU	DE LO	NGITUDE 500 2		SDEN JARE	t	ON THE	YEA		UISE S	ATOR'S STATION NUMBER		DEPTH TD BOTTOM	DEPTH OF S'MPL"		WAVE SERVATION		THER CODE	COL	DES			NODC STATION NUMBER
			1	1		COLOR CODE		-	SPEED	BARO- METER (mbs)	AIR TE	MP. °C WET BULB	VIS.	NO. OBS. DEPTHS	COLLEGE	CIAL					,		,	
i	TIME		CAPD TYPE	DEPTH (m)	,	r *c	s	•/	SIGMA-		ECIFIC VOLU		€ △ D SYN. M x 10 <sup>3</sup>		UND	O 2 m1/	PO4-1		OTA L = P	NO2-		NO3-N µg - al/l	SI 04-5	
-		I	 STD	0700		0447	35	00	1 27 <b>7</b> 6	1	000425	6 (	0492	14	1 +C3+		ì	1	1	1				'
			085	0700		0447		000	2776					14	804									
			STD	•		1429	35	00	2778		000414	3 (	j534	. 14	813									
			OBS	0800	(	0429	35	000	2778					1 4	813									
			STD	0900	(	0415	35	00	2779		000407	4	0575	14	824									
			OBS	0900	(	0415	35	000	2779						824									
			STD	1000	(	0401	34	98	2779		000412	.5	0616		834									
			OBS	1000		0401		983	2779						834									
			STD			387	34		2780		000411	. 2	0657	_	+845									
			OBS	1100		3387	-	974	2780			-			1845									
			STO			0379	34		2780		000414	+ /	0699		+858									
			OBS	1200		0379		968	2780				0740		+858 +873									
			STD			0375	34		2781		000417	6	0140		+873									
			OBS	1300		0375 0370	34	969	2781 2781		000419	a 6	0782		4888									
			STD						2781		00041	, 0			4888									
			OBS	1400		0370	34	969	2781		00042	75	0825	_	4905									
			STC OBS	1500		0370		970	2781		00042		V - L J		4905									

REFERENCE			- =	MARSDEN	STATION	TIME		7	RIGIN	ATOR'S		DEPTI		AX.		WAVE	WEA-	CLOUD	T		1100	7
CODE NO. CODE	ATITUDE 1/1	1	NGITUDE E	SQUARE 10° 1°	MO DAY	)	YEAR	CRUISE NO.	5	TATION		TO		PTH OF		ERVATIONS	THER	CODES			NODC STATION NUMBER	N
L-+	+23 N	_	754 W	149 47	05 13	203	1967	NO.	99.		`	347	3 ~	15		HGY PER SEA	`-	TYPE AM		-+		
1 1 1 1 1 1 1 1				WA		WIND	BARC			J. ℃	_	NO.	_			2   2	X1	0 3			001	6
				COLOR	TRANS. DIR	SPEE OR FDR	O METE	R	RY JLB	WET	COD VIS.		0.00	SPECI.								
				OT	SD 16				17	106	6	49										
MESSENGR		ARD			1	┪						Ц.					_	_	-	_	-	
MESSENGR CA	10.	TYPE	DEPTH (m)	T ℃	5 %.	SIC	SMA-T	ANOM	VOLU.	ة   أ	E △ D YN, M X 10 <sup>3</sup>	r	LOCIT	, 0	2 ml/1	PO4-P	TOTAL=P. ا/۱۵ - وبر	NO <sub>2</sub> -N μg - σl/l	NO3-N μg - σt/f	51 O4-		1 5
									_	_				+							_	+
202	,	STO	0000	1165	3480		652	001	521	7 0	000		4960			1 1	'	ı		1		- 1
203	U	BS STD	0000	1165 1162	34802 3480		652 653	001	510		015		4960 496									
	0	BS	0010	1162	34802		653	001	710	0 (	,015		496.									
0.04		STD	0020	1132	3477		556	001	+91	0 0	030	14	495	1								
004	U	BS STD	0020	1132 1069	34771 3481	-	656 570	001	3.5.0				495									
	0	BS	0030	1069	34805		570	001	2290	5 (	1045		493) 493)									
	0	BS	0031	1058	34830	20	674						4928									
		BS STD	0035 0050	1064 0992	34849 3478		574 581	001	3 E C :	, ,		14	493	1								
		BS	0050	0992	34775	_	581	001	458.	3 (	071		4906 4906									
		BS	0062	0989	34779		582						4901									
		BS	0069	0997	34845		586						4912									
		STD BS	0075 0075	0990 0990	3480 34798		583 583	001.	243	5 (	102		491( 491(	-								
	0	BS	8800	0983	34800		584						4910	_								
		STD	0100	0985	3481		85	001	2304	4 (	133		491									
		BS STD	0100 0125	0985 1061	34812 3512		685 696	001	136		162		4912 4948									
	0	BS	0125	1061	35122		596	001	194	2 (	102		4946									
		BS	0132	1016	35005		595					14	4931	l								
		BS STD	0136 0150	1074 0996	35180 3508		598 704	0010	1600		190		4955 4928									
		Bs	0150	0996	35082		704	0010	,600	, ,	190		+926 4928									
		8\$	0188	0873	34945		714						4887									
		BS	0195	0824	34945		721						+870									
		STD BS	0200 0200	0847 0847	3495 34950		718 718	000	9319	9 0	240		4879 4879									
	0	BS	0220	0773	34890		725						+0/: 4854									
		BS	0232	0830	34990		724					14	+879	9								
		STD BS	0250 0250	0770 0770	3495 34950		730 730	0008	327	1 0	284		4858 4858									
		BS	0268	0703	34888		735						+834									
		BS	0282	0699	34919		738						+835									
		BS STD	0297 0300	0718 0708	34985 3496	_	740				3.2.2		+846									
		85	0300	0708	34955		739 739	000	435	9 0	323		+842 +842									
	0	BS	0310	0691	34962		742						837									
		BS	0315	0720	35035		744						851									
		85 85	0325 0340	0684 0728	34999 35122		746 750						838									
		STD	0400	0593	3492		752	0006	342	2 0	392		859 813									
		BS	0400	0593	34915		52						813									
		85	0440	0411	34750		60						742									
		BS STD	0461 0500	0387 0507	34741 3495		62 65	0005	] 30	) ^	449		+736 +795									
	0	BS	0500	0507	34950		765	000	. 1 ) (	, 0	.47		795									
		88	0510	0541	35015		66					14	811									
		BS BS	0540 0570	0541 0479	35018 34960		'66 '69						816 795									
		STD	0600	0480	3497		69	0004	783	3 0	499		195 1800									
	0	BS	0600	0480	34968	27	69	- 1			. ,	14	800									
		BS BS	0630 0675	0507 0466	35012 34992		70						817									
	0	03	0075	V400	34772	21	73					14	807									

ENCE	SHIP	LATITU	-	ONGITUDE	sau	SOEN JARÉ	t	ION TI	YEAR	CK		STATIC	N	$\neg$	DEPTH TO OTTOM	DEPTI OF S'MPL	H 0	BSERV	A TION		WEA- THER CODE		230			NODC TATION NUMBER
NO.			1/10	1/10	10.	1.	MO (	HYAC	R.1/10	-+'		1401416	, L	+-		3 MILL	3 000	- 100	1	**		-	-			
			1			لــــــــــــــــــــــــــــــــــــــ		, 1.						4				٦,	ł I	- 1		ı	l	I	- 1	
						WA	_	_		RO-	AIR TE	_	_	vis.	NO.		ECIAL									
						COLOR	TRANS.	DIR.	00 1""	ETER nbs)	DRY BULB	BUI			DEPTHS	OBSER	VATION	,								
								$\vdash$	70.00	_				_												
						1	+		<del>                                     </del>			┸	₹ Δ		Τ		_	1		Τ.				NO1-N	51.04-	
	MESSENG	CAST	CARD	DEPTH (m)	1	o* 1	S	٠4.	SIGMA-T		CIFIC VOL		DYN	. м.		JND	O2 ml		PO4-P ug • 01/1		01AL-P	NO2		µg - al/I	yg - al.	
	HR 1/1		1172				-		ļ	-		-+	X	100	-			-+		+	_	-	-		-	+
					1					-												l	I		!	1
	•												05	. c	1.6	812										
			STO			0466	35		2774	(	00446	30	05	45		812										
			085	0700		3466		001	2774		00429	2.4.	05	9.0		818										
			ST			0442	35		2776	(	10042	74	0 2	07		818										
			OBS	0800		0442		001	2776	,	00061	77	06	2.1		825										
			STE			0418	-	99	2778	(	00041	11	00	<i>5</i> 1		825										
			oBs	0900		0418		991	2778	,	00042	0.0	0.6	73		834										
			ST			0400		97	2778	,	10042	09	00	1)		834										
			OBS	1000		0400		970 98	2778 2779	,	00042	0.3	0.7	15		848										
			ST			0395				,	10042	0 3	0,	1 )		848										
			OBS	1100		0395 0384		975 97	2780	(	00041	94	0.7	57		860										
			ST				_	970		,	0041	, ~	٠,	- '		860										
			085	1200		0384 0378		910 97	2781	,	00042	1 /4	0.7	99		875										
			ST				-			,	10042	14	٠.	,,		875										
			oBs	1300		0378	-	969	2781 2781	,	00041	0.8	0.8	41		888										
			ST			0370		97		,	00041	- 0	00	1 4-		888										
			OBS	1400		0370		969			00063	2.2	0.9	83		+909										
			ST			0378	-	99	2782	,	00042	26	00	,03		+909										
			OBS	1500		0378	34	990	2782						1.	+909										

ID,	SHIP	LATITU			GITUOE	DRIFT	SOU	ARE	- (	ON T		YEAR	CRUIS	E :	ATOR'S TATION	$\dashv$	DEPT	J 56	H OI	WA V	VE	WEA- THER	CLOUG		\$1	NODC
NU,	EV	4419	1/10 N	047	1/10	=	10°	47			R.1/10	1967	NO	99	UMBER	$\rightarrow$	2.7/	S'MP	L'S DIF.	$\rightarrow$	PER SE		TYPE AM	1		UMBE
	- 1					' '	[	WA	TER	_	/IND	BARC		AIR TE		VIS.	374 NO.		5   15 PECIAL	3   3	2	X1	1 013	ı		001
								COLOR	TRANS.	DIR.	SPEED OR FORCE	METE (mbs		ORY BULS	W E T BULB	CODE	DEPTI	OBCC	NOTTAVE	5						
			_					DT	SD	16	S30	15	9	150	139		38			1_						
	TIME (	CAST NO.	C A R TYP	D E	DEPTH (	m}	T	℃	2	٠/	SIGN	\A-T	SPECIF	MALY-XI	ME 01	△ D N. M. 10 <sup>3</sup>	. s	OUND ELOCITY	O <sub>2</sub> mb		04=P - 01/I	10TAL-P	NO <sub>2</sub> =N µg = at/1	NO <sub>3</sub> =N yg - oi/l	\$1 O4-\$1 ug = o1/1	pŀ
	223	3	0B:		0000			367 367	35i	29 289	26: 26:		00	1543	6 0	000		5035 5035								
			S	TΟ	0010	0	1	366	35	30	26	50	00	1540	0 0	015	1	5036								
			08:	5 TD	0010			366 3 <b>7</b> 0	351 351		26: 26:		0.0	1523	6 O	031		5036 5039								
	003	3	08:		0020			370	35		26	52					1	5039								
			S :		0030			380 380	355 355	09	26		00	1416	7 0	045		5046 5046								
			0B:		0039			433	350	94	26	67					1	5067								
			08:	TD S	0050			408 408	356 356		26°		00	1356	6 0	073		5061 5061								
			S.	T D	0075	5	1.	269	35	39	26	78	00	1300	3 0	106	1	5015								
			085 S		0079			269 200	351 352		26		00	1269	6 0	139		5015 4994								
			085		0100			200	35		26	31			- •		1	4994								
			089 S1		0110			199 247	352 354		268 268		00	1258	0 0	170		4996 5016								
			089		0125			247	354		268						1	5016								
			0B3		0130			179 189	352 352		268 268							4992 4997								
			\$1		0150			162	352		268	35	00	1251	1 0.	201	1	4989								
			089		0150			162 )78	352 350		268 269							4989 4961								
			S1	D	0200		1	180	354	4	269	99	00	1129	1 0	261	1	5006								
			085 S1		0200			180 064	354 353		269		0.0	1030	0 0:	315		5006 4972								
			089	5	0250	)	10	064	353	10	27	10	• •				1	4972								
			085 085		0270			005 396	352 350		27:							4953 4914								
			085		0298			930	351		271	18					1	4929								
			S1 085		0300			904	351 351		272		000	928	4 0:	364		4919 4919								
			0 B S		0351			796	350		273	35					1	4886								
			085 S1		0377			303 772	351 351		274		000	722	5 04	+46		4894 4886								
			089		0400			772	351		274	+4					1	4886								
			085 S1		0470			+40 571	347		275		000	0556	3 05	10		4760 4821								
			0B9		0500			571	350	00	276	1					1 -	4821								
			0B3		0510			86	350 350		276							4829 4833								
			S1	D	0600		0.5	33	349	7	276	3	000	0542	0 0	65	1	4822								
			280		0600			33 •57	349		276							4822 4801								
			SI		0700			+58	349		277		000	0466	4 06	16	1	4808								
			0B5		0700			58 58	349 349		277		000	)457	1 06	62		4808 4825								
			085		0800			+58	349		277						1	4825								
			51 089		0900			32	349 349		277		000	)441	+ 0	707		4831 4831								
			ST	D	1000	)	04	31	350	0	277	7	000	)437	7 07	751	1	4847								
			0BS		1000			31	349 349		277		000	)427	3 07	94		4847 4854								
			OBS	,	1100	)	04	09	349	89	277	9					14	4854								
			ST OBS		1200 1200			98 198	349 349		277 277		000	)428	3 08	37		4866 4866								
			ST OBS	D	1300	)	0.3	88	349	7	278	0	000	)433	3 06	80	14	4879								
			ST		1300			88 81	349 349		278 278		000	)433	1 09	23		4879 4893								
			OBS	,	1400	)	03	881	349	70	278	0					14	4893								
			12 280		1500 1500			173 173	349 349		278 278		000	433	09	67		4906 4906								

FERENCE	SHIP	LATITUDI	E LOF	IGITUDE 100	MARSDEN SOUARE	STATION TIM	EYEAR	ORIGINA CRUISE ST	TOR'S	DEPT	000		WAVE ERVATIONS	WEA	CO	UD DES	 NOE STAT NUM	ON
I ID.	CODE		/10	1/10		MO DAY HR.		NO. N	UMBER	BOTTO	M S'MPL		HGT PER SE		11172		 1	-
18016	Ev	4415	N 04	715 W			01 1967			384		15	5 3	X1	0	3	00	18
					COLOR	-	SPEED BAR	ER DRY	WET COD	OBS.	08550	ECIAL VATIONS						
					CODE	Im I	FORCE Imb		3 / 4 7		-							
ſ		1-			DT	SD 16	528	156	144 7	38			T				 0 6	
	MESSENGR TIME	CAST NO.	CARD TYPE	DEPTH (m)	1 °C	s */	SIGMA-T	ANOMALY-XI	ME DYN. M	. V	ETOCITA ORMO	0 2 ml/l	PO4-P pg - 61/1	101AL- 10 - 94			04-Si  - at/f	рН
	HR 1/10	-	_	-					-	-			1					
ı		! !	STD	0000	1548	3589	2657	001477	5 0000		5100	,	'					
	00	l	OBS	0000	1548	35889	2657	001478	5 0015		5100 5101							
			STD OBS	0010 0010	1547 1547	3589 35889	2657 2657	001410	) 001.		5101							
	00	3	OBS	0018	1547	35889	2657				5103							
	•		STD	0020	1544	3586	2655	001497	1 0030		5102							
			OBS	0020	1544	35859	2655		7 001		5102							
			STD	0030	1491 1491	3579 35788	2662 2662	001439	7 0044		5086							
			OBS OBS	0030 0040	1491	35771	2668				5077							
			STD	0050	1457	3577	2668	001387	4 007	3 1	5078							
			OBS	0050	1457	35771	2668	00122	0.10		5078							
			STD	0075	1370	3563 35629	2675 2675	001321	8 010	_	.5052 .5052							
			085 085	0075 0086	1370 1370	35610	2674				5054							
			QBS	0092	1324	35525	2677				5038							
			STD	0100	1317	3551	2677	001315	1 013		15037							
			OBS	0100	1317 1310	35505 35536	26 <b>7</b> 7 2681				l 5037 l 5036							
			OBS STD	0108 0125	1323	3554	2678	001311	8 017		5044							
			085	0125	1323	35535	2678				15044							
			OBS	0135	1321	35510	2676				15044							
			QBS	0140 0150	1299 1300	35498 3551	2680 2680	001295	8 040		15038 15040							
			STD OBS	0150	1300	35505	2680	001273	0 0-0		15040							
			OBS	0162	1300	35524	2682				15042							
			OBS	0190	1218	35434	2691	001100	. 076		15017 15035							
			STD	0200 0200	1260 1260	3555 35550	2692 2692	001199	026		15035							
			085 STD	0250	1167	3544	2701	00111	8 032		15010							
			OBS	0250	1167	35441	2701				15010							
			STD	0300	1018	3522	2711	001029	18 037		14962 14962							
			OBS STD	0300	1018 0815	35218 3507	2711 2733	000832	0 047		14902							
			0BS	0400	0815	35070	2733	000-7			14902							
			085	0490	0631	34930	2748				14843							
			SID	0500	0578	3488	2751	000654	+3 054		14823 14823							
			0B5 0B5	0500 0515	0578 0551	34880 34872	2751 2753				14814							
			0BS	0535	0591	35002	2759				14835	•						
			OBS	0550	0571	34975	2759				14829							
			OBS	0572	0584	35022 3502	2761 2763	00054	37 000		14839 14837							
			STD OBS	0600 0600	0568 0568	35023	2763	00054	. 070	-	14837							
			STD	0700	0516	3501	2769	00050	37 065	9	14834							
			OBS	0700	0516	35010	2769	00046	71 070	A.	14834							
			STO	0800	0472 0472	3500 35000	2773 2773	00046	,, 0,0	, 0	1483							
			085 510		0472	3499	2774	00045	90 075	4	14839	9						
			OBS	0900	0451	34990	2774				14839							
			ST		0438		2776	00045	31 080	0	14850							
			085	1000	0438 0424		2776 2777	00044	54 084	. 4	1486							
			STE OBS	1100	0424			00044		•	1486	1						
			510		0408	3499	2779	3 0004 ق	48 088	88	1487							
			085	1200	0408			00044	22 00	2 2	1487							
			STO	1300 1300	0398 0398		2779 2779	00044	23 09:	ے د	1488							
			0BS 5T(		0398		2780	00044	34 09	77	1489	6						
			OBS	1400	0389	34970	2780				1489							
			STO	1500	0383		2780	00044	44 10	21	1491							
			OBS	1500	0383	34970	2780				1491	U						

	NCE	SHIP	LATITU	DE I	DNGITUDE	DRIFT	MARSDEN SOUARE	STATION TI	ME	YEAR		SINATO		$\Box$	DEPTH	MAX. DEPTH	089	WAVE SERVATIONS	WEA-	CLOUD			NOC	
r E	10. NO.	CODE		1/10	1/10			MO DAY H	3.1/10	15.04	CRUISE NO.	STAT NUM			BOTTOM	OF S'MPL'S	l .	HGT PER SEA	0001	TYPE AM	1		NUM	
18	016	ΕV	4407	N C	14634 W		149 46	05 14 0	34	1967	9	935			3931	15	15	5 2	X1	0 3			00	1
							WAT		IND SPEED	BARG	<i>)</i> -	TEMP.		VIS.	NO.	SPEC	IAL							
							COLOR	TRANS DIR.	OR FORCE	(mbs		W 81.	ET C	CODE	OBS. DEPTHS	OBSERV	A TIONS							
							DT	SD 16	523	16	3 150	) 1	44	7	33									
	[	MESSENGR TIME 0	CAST	CARD	OEPTH	[m]	1 %	s */	SIGN	A-T	SPECIFIC VO		₹ Z	20	sou	DNO	0 2 ml/l	PO4P 1	TOTA L-P	NO2-N	NO3-N	SI 04-		P
		HR 1/10	NO.	TYPE							ANOMALY	-x10'	X	103	. VELC	CITY		μg + α1/1	⊭g - o1/1	µg - α1/l	μg - σ1/1	µg - 01	/1	-
																				l				
		032		STC OBS	000		1561 1561	3586 35857	26 26		00152	287	00	00		104 104								
		032		STE			1556	3586	26		0015	189	00	15		104								
				OBS	001		1556	35860	26							104								
		004		510 085	002		1513 1513	3590 35896	26		00140	041	00	30		092 092								
		504	•	STO			1489	3586	26		00138	344	00	44		086								
				OBS	003	0	1489	35858	26	67					15	086								
				ST0	005		1472 1472	3580 35800	26		00139	773	00	72		083								
				STE			1412	3569	26 26		00136	38	01	06		083 067								
				OBS	007		1413	35690	26							067								
				STO			1358	3561	26		00131	175	01	40		052								
				085 STD	010		1358 1322	35612 3555	26°		00130	10.3	01	72		052 043								
				OBS	012		1322	35548	26		00150	,05	01	12		043								
				STO			1267	3552	26		0012	191	02	04		029								
				0BS 0BS	015 016		1267 1297	35523 35547	26							029								
				085	017		1271	35470	261 261							041 033								
				085	017		1256	35530	26							030								
				OBS	018		1282	35552	26							041								
				STC	020		1237	3550	26		00119	914	02	64		026								
				085 ST0			1237 1149	35501 3543	269		00109	959	03	21		026 003								
				OBS	025		1149	35426	27		0010	, ,	0.5			003								
				085	026		1070	35244	27				. 2			975								
				08S	030		0999 0999	3521 35210	27		00100	36	03	74		955 955								
				085	034		0930	35103	27							935								
				085	037	1	0829	35022	27	2 7					14	902								
				STD			0775	3504	27		00079	956	04	64		886								
				08S 0BS	040 047		0775 0639	35038 34923	27							886 843								
				085	048		0659	35005	27							854								
				STD	050	0	0652	3501	27	51	00066	07	05	37	14	854								
				085 510	050 060		0652 0559	35005 3501	275		00054		05	07		854 833								
				085	060		0559	35008	276		00001	.01	رن	, ,		833								
				STD	070	0	0512	3501	276	59	00049	72	06	49	14	831								
				OBS	070		0512	35012	276			0.00				831								
				51D 0BS	080 080		0487 0487	3501 35007	27		00048	08	06	98		837 837								
				STD			0444	3498	27		00045	70	07	45		836								
				085	090		0444	34981	27							836								
				STD OBS	100 100		0449 0449	3501 35011	27		00045	15	07	90		855								
				STD			0449	3500	27		00044	71	08	35		855 863								
				085	110		0430	34998	27							863								
				STO			0417	3499	27		00044	62	08	80	14	874								
				085 STC	120 130		0417	34990 3499	27		00043	10.7	09	<b>7</b> .		874 886								
				085	130		0404	3499	27		00043	,7 (	UY	۷ 4		886								
				STO	140	0	0390	3497	271	30	00044	32	09	69		897								
				085	140		0390	34972	271							897								
				5TC 085	150 150		0380 0380	3496 34957	27		00045	00	10	13		909 909								

REFE	RENCE	SHIP	LATITU	DE LOI	NGITU OE NOUTIN	MARSDEN SQUARE	STATION TIN	ME	YEAR	CRUISE	51	ATOR'S		DEPTH TO SOTTOM	MAX. DEPTH OF		WAVE SERVATIONS	WEA- 1HER CODE	CODES	1		NODC STATION NUMBER	
CODE	NO.	CODE		1/10	· '1/10 - 2	10" 1"	MO DAY HE	1,1/10		NO.	N	UMBER	-		S'MPL"		HGT PER SEA		TYPE AM	1			-
31	8016	Ev	4359	N 04	553 W				1967	<u> </u>	99			4023	13	19	5 2	X1	0 3			0020	1
						WAT		O AI	BAR	۰ –		AP. °C	VIS.	NO. OBS.	SPE	CIAL							
						COLOR	TRANS. OIR.	OR	(mbi			W ET BULB	CDD	OEPTHS	OBSERV	ATIONS							
						DT	SD 19	524	16	6 16	7	156	6	25									
							00 27	T					_	(0)	UND	_	PO4-P	TOTAL-P	NO2-N	NO3-N	SID4-S		s
		MESSENGR TIME	NO.	CARD	DEPTH (m)	τ *c	s */	SIG	MA-T	SPECIFIC ANOMA	VOLUI	Mr o	△ D N. M 103	VELO	OCITY	02 ml/	yg - el/i	μg - α1/l	νg - α1/1	νg - σ1/1	μg - σ1/		c
		HR 1/10	-										-	-	-+		-					1	$\neg$
			l	6.70	0000	1392	3535	26	40	0015	55A	n	000	1 15	043		1 1		ŀ	1	1	1	
		06	_	STD 085	0000	1392	35348	26		001.	,,,	0 0	000		043								
		00	,	STD	0010	1350	3536		59	0014	460	9 0	015	15	031								
				085	0010	1350	35360		59					15	031								
				STD	0020	1298	3540		73	0013	331	2 0	029		016								
		00	3	OBS	0020	1298	35403	26							016								
				STD	0030	1279	3537		74	0013	320	4 0	042		011								
				OBS	0030	1279 1269	35372 3536		74	001	314	3 0	069		011								
				STD	0050 0050	1269	35359		75	001.	210	J 0	<b>.</b> .		011								
				08S STD	0075	1282	3542		77	001	306	7 0	101		020								
				OBS	0075	1282	35415		77	-					020								
				STD	0100	1298	3547	26	78	001	303	9 0	134		030								
				OBS	0100	1298	35470		78						030								
				STD	0125	1295	3549		80	001	288	8 0	166		034								
				085	0125	1295	35492		080	003	201	7 0	100		034								
				STD	0150	1293	3549 35492		81	001	291	/	199		037								
				OBS	0150 0200	1293 1204	3530		81	001	274	6 0	26:		013								
				STD OBS	0200	1204	35303		83	001	_ , -	0 0	-0.		013								
				STO	0250	1093	3528		102	001	102	7 0	322	2 14	982								
				OBS	0250	1093	35280	27	702						982								
				085	0257	1115	35370		705						1992								
				085	0287	0984	35130		710						947								
				STD	0300	1030	3524		710	001	031	8 (	137		4967 4967								
				085	0300	1030 0762	35235 3494		710 730	000	949	10 (	47		4880								
				STO	0400 0400	0762	34940		730	000	040	,, (	, . , .		4880								
				OBS STD	0500	0658	3501		750	000	666	0 0	540		4856								
				OBS	0500	0658	35009	_	750					14	4856								
				STO	0600	0587	3501	2	760	000	583	34 (	060	8 14	4845								
				085	0600	0587	35010	2	760						4845								
				STD	0700	0516	3499	2.	767	000	520	8 (	66		4832								
				OBS	0700	0516	34987		767	000			. 7 1		4832								
				STD	0800	0463	3498		773	000	467	1 (	71		4827 4827								
				OBS	0800	0463 0447	34984 3497		773 773	000	469	21 (	76		4837								
				STD 085	0900 0900	0447	34971		773	500	+00	, , ,	, , 0		4837								
				STD	1000	0429			775	000	455	58 (	080		4846								
				085	1000	0429			775					1.	4846								
				STO	_	0425	3497		776	000	460	7 (	85		4861								
				OBS	1100	0425			776						4861								
				STD		0404	3497		778	000	445	59	189		4869								
				OBS	1200	0404	34968		778	000		50	94		4869 4882								
				STD		0395	3497 34965		779 779	000	44:	י טי	J 7 4		4882								
				085	1300 1340	0395 0393			119 779						4888								
				OBS	1740	0,77	74707							_									

REFERENCÉ													,				1		MAX.			_					_		
CTRY ID.	SHIP	LATITUI	DE 1/10	LONG	SITUDE 1/10	NDCTR	SOUARE	İ		MT)		YEAR	CRUISE NO.	1	ATOR'S		1	TO TO	DEPTH OF		WAVE ERVATI	ONS	WEA- THER CODE	CODE	:		NO STAT	'ION	
318016	ΕV	4351	-	045	., .,	+-+	149 3	$\rightarrow$	05 l			1967	NO.	99	37		-	72	S'MPL'S	18	HGT FE	1	x 2	0 3	-	-		21	
								WAT	_	w	IN D SPEED	BARC	/ <del>-</del> -	AIR TE	MP, 'C	vis.	1	٧٥.	SPEC	ta L	1-1-	ı	1 // 2	, 012	1	- 1	00	/21	
							COL		TRANS, (m)	DIR,	OR FORCE	(mbs		DRY	BULB	COD	DE	PTHS	OBSERVA	ZNOIT									
							D.	Т	SO	20	520	19	3 1	56	139		٠,	90										_	
	MESSENGR TIME HR 1/10	CAST NO.	CAR	E	DEPTH (	(m)	₹ *C		5 '	V	SIGA	T-AN	SPECIFIC	VOLU	ME D	A D VN. M X 10 <sup>3</sup>	٨.	VETO:		02 m1/1	PO <sub>4</sub>		FOTAL-P	NO2-N µg - 01/l	NO3-N yg - al/l	\$1 O4-		рН	S
							-			_	-				1		$\dagger$		-+		+-	1				-			+
	103		S1 089		0000		102		343		26 26		001	648	4 0	000	) '	149			1	,				1	1		
	103	,	S 1	D	001	0	085	0	343	0	26	67	001	382	5 0	015	5	149 148											
			0B3		001		085		343 345		26 26		001	305	9 0	029		148											
	003	3	089	5	002	0	094	O	345	90	26	75	001	- 0 3	, ,	02)		148	80										
			OBS ST		003		0969		346 346		26°		001	309	7 0	042		148											
			0B3		0030		0958		346 346		26 26							148	89										
			089	5	004	3	0931	8	346	10	26							148											
			085 ST		004		095		346 346		26°		001	285	3 0	068		148											
			089	5	005	0	0939	9	346	24	26	78	001		, ,	000		148	85										
			0 B S		006		093: 091:		347 347		26		001	185	6 0	099		148											
			08s		0079		0915		347		268							148	81										
			OBS	5	008		0938		347 347		269							148											
			085 085		009		0895 09 <b>6</b> 5		347 350		261							148	77										
			ST	D	010		096		350	3	27	05	001	036	2 0	126		149											
			083 083	S	010	0 3	096 096	5 5	350 350	31 31	27 27	05 05						149											
			085	5	0109		100		350	31	269	99						149	22										
			0B\$		0119		0996		350 349		270		001	055	7 0	152		149											
			08s		0129		0955 0653		349 345		270		000	9491	0 0	177		149 147											
			OBS	5	0150	)	0653	3	345	48	27	15	000	277	0 0	_ / /		147											
			0BS		0162		0597 0724		345 348		27:							147 148											
			OBS		0183		0777		349	60	27	30						148	50										
			08s	D	0197		0787 0762		349 348	-	272		000	860	3 0	223		148											
			08S		0200		0762 0710		348 348		272							148	46										
			OBS	,	0219		0716		348		27:							148											
			08s		0221		0632 0628		347 347		273							147 147											
			OBS	,	0233	3	0637	7P	346	90	272	28P																	
			OB\$		0240		0575 0577		346 347		273		000	743	8 0	263		147											
			08s		0250		0577 0584		347 347		273							147											
			OBS		0256		0553		347		274							147 147											
			085 085		0267		0545 0570		347		274							147 147											
			OBS		0285	•	0560	)	347	59	274	. 3						147	78										
			08s ST		0290		0563 0546		347		274		000	6713	3 0	298		147											
			0BS 0BS		0300	)	0546 0547	5	347	58	274	6						147	75										
			035		0312	2	0526	5	347 347	75	274	9						147											
			08s		0322		0520 0550		3478		275							147											
			OBS		0331		0530	)	3484	40	275	3						147	75										
			OBS OBS		0348		0544 0525		3488		275							147											
			OBS		0387	7	0532	2	348	98	275	8						147	86										
			OBS		0396	)	0523	5	349.	20	276	1						147	84										

FERENC	_	SHIP	LATITUE	E LO	NGITUDE	DCTR	MARSDEN SQUARE	STATI	ION TII	WE ,	EAR C		STATIC		DEP	ĭн   '	MAX OEPTH OF		WAVE ERVATIO	NS.	WEA-		LOUD			NO STA	DC
Y 10	ó.	COOE		1/10	1/10	Ĭ-	10. 1.	MO C	AY H	1,1/10		NO.	NUMB		BOTT	ow s	*MPL	"S DIR.	HGT PER	SEA	CODE	TT	PE AMT			NUA	A B E P
	1			١		Ţ	WAT	ER	H.	IND	!_	AIR TE	MP. C		T	1		1			1		I	Ī	1		
							<b>—</b>	TRANS.	-	SPEED	BARO+ METER	ORY	WE		OE DEPT	S. 0	SPI BSER	ECIAL VATIONS									
							CODE	(m)		FORCE	(mbs)	BULB	BUL	8	- 000												
	-		7 1		T								┸-,-			1		1		-					T		_
		MESSENG# TIME	CAST NO.	CARD TYPE	DEPTH im	,	1 °C	s	•/	SIGM	A-T SI	ECIFIC VOL	JME 107	₹ △ 0 DYN. 8 x 10	ÿ.   ,	SOUN ELOC	ID ITY	02 ml/l	PO4-	P /t	TOTAL-P ug + o1/L		02-N - al/l	NO3-N	\$1 O <sub>4</sub>	Si p1/1	ρН
	}	HR 1/10	+			-		-		_			-	X 10					+	+		-	-	-	-	+	_
			1			- 1		1		1	1		- 1						ı	-		1	ı		1		
				STO	0400		0530	349		276		00055	12	035		147											
				OBS	0400		0530		920	276						147	87										
				OBS OBS	0410		0533 0556P	34	94P	276 275																	
				085	0430		0515		925	276						147	86										
				085	0440		0513	349		276						147											
				OBS	0446		0524		960	276						147											
				OBS	0460		0525		958	276						147											
				OBS STD	0471 0500		0503 0496	34	958 96	276 276		00049	36	041		147 147											
				OBS	0500		0496		958	276			-			147											
				OBS	0560		0482		956	276						147											
				OBS	0580		0464		950	277				04.5		147											
				STD OBS	0600 0600		0462 0462	34	960 960	277		00046.	26	045		147 147											
				OBS	0613		0464		970	277						147											
				OBS	0620		0469	34	960	277	0					147	99										
				OBS	0638		0463		950	277						147											
				085	0640		0455		950	277						147 147											
				OBS OBS	0656 0670		0452 0462		960 967	277						148											
				STD	0700		0455	34		277		00045	83	050		148											
				OBS	0700		0455		969	277						148	07										
				0B5	0730		0451 0429		92P 968	276						148	n a										
				OBS OBS	0756		0445		968	27						148											
				OBS	0760		0443		973	271						148											
				OBS	0772	:	0448		970	271						148											
				OBS	0787		0437		964	27						148											
				OBS	0 <b>7</b> 96		0437 0433	34	943	277 277		00046	36	055		148 148											
				STD OBS	0800		0433		940	277		00040	50	000		148											
				OBS	0818		0412		940	277						148	80										
				OBS	0830		0413		954	277						148											
				OBS	0835		0420		960	27						148 148											
				085	0842 0873		0413 0436		967 977	271						148											
				OBS STD	0900		0427	34		27		00043	8 2	059		148											
				OBS	0900		0427	34	978	271	76					148	128										
				STD	1000		0415	34		277		00043	55	064		148											
				OBS	1000		0415		975	27						148 148											
				OBS STD	1080		0407 0413	34	982 97	277 277		00044	6.3	058		148											
				OBS	1100		0413		970	27		555.4		J = 0		148											
				OBS	1110	)	0404	34	970	27	78					148	154										
				STD	1200		0398	34		27		00043	69	072		148											
				OBS	1200		0398	34 34	970	27		00044	1.6	077		148											
				STO OBS	1300 1300		0383 0383		950	27		VUU44	10	0.1	_	148											
				STD	1400		0373	34		27		00044	12	0 8 1	7	148											
				OBS	1400		0373		945	27						148											
				STD	1500		0370		96	278		00043	70	086	1	149											
				OBS	1500	)	0370	34	957	278	30					149	05										

REFEREN	_	SHIP	LATITU	0.5	1011	GITUDE	DC 18	MARS		STAT	ION I	IME	VC. 1.0			ATOR'S		DEPTH	MAX		WAVE		WEA					NOOC
	D,	CODE	. LAIIIU	1/10	LON	*1/10	ğ	10*				1R,1/10	YEAR	CRUI		TATION		TO BOTTOM	0.5	1 00	HGT PE		THER	TYPE				TATION UMBER
3180	116	ΕV	4657		04	744 W	$\exists$	149	-	_			1967		99	3.0		0179	02		3 3	$\top$	X1	1				
D 1/0			1051	,,,,			1	• • • •	WAT			WIND			AIR TE		T	NO.	h — — —		دا دا	1	1 X I	0	3		1	002
									COLOR	TRANS.	OIR	SPEED OR FORCE	METER (mbs)	R	DRY	WET	CODE	OBS. DEPTHS	SPE OBSER\	CIAL /ATIONS								
								Ì	DT	SD	20	<del> </del>	179	9	028	028	7	14		-								
		MESSENG TIME HR 1/10	NO.	C A TY		DEPTH (m	1)	t	٦	s	٠/	SIGA	AA-T		FIC VOLU	57 D	△ D N. M.		UNO OCITY	02 ml/	PO 4		TOTA ( ~ P pg - at/1	NO2-		-N ol/I	\$1 O4-\$1	рН
																						$\neg$						
					10	0000			120	32		26		00	1695	3 0	000		518									
		05	3	OB		0000			120		861	26							518									
				08		0005			120		862	26							519									
			_	-	TD	0010			115	32		26		00	1690	0 0	017		517									
		0 0	0	OB		0010			115		864	26				_			517									
				_	TD	0020			039	32		26		00	1609	7 0	033		449									
				08		0020			039		869	26							449									
				_	TD	0030			031	32		26		00	1584	2 0	049		455									
				08		0030			031		906	26							455									
					TD	0050			101	32		26		00	1508	7 0	080		426									
				OB		0050			101		970	26							426									
				08	-	0065			126		006	26			1250				417									
					TD	0075			106	33		26		0.0	1352	4 0	116		431									
				OB OB		0075			106		170	26							431									
						0080			087		180	26	-						441									
				OB	TD	0100			139 136	33	180	26°		0.0	1210	2 0	1,0		418									
				08		0100			136	33		26		00	1310	2 0	149		421 421									
					1D	0125			053	33		26		0.0	1164	0 0	180		421 467									
				0 B		0125			053					00	1104	7 U	100											
					TD	0123			042	33	438	26 26		00	1102	٠ ،	209		467 517									
				OB		0150			042	_	580			00	1102	0 0	-07											
					_							26							517									
				ОВ	5	0165	,	U	042	33	575	26	76					14	520									

REFE	RENCE ID.	SHIP	LATITU	IDE	LON	GITUOE	DRIFT	MAR		STAT	ION T	ME	YEAR				TOR'S			HT9	MAX. DEPTN	085	WAVE ERVATIONS	WEA				NOC		
CODE	NO.	CODE		1/10		1/	10 2	10*	1 10			R.1/10		ľ	NO.		L MBER			TO	OF S'MPL'S		HGT PER S	- 000		_		NUM		
31	8016	EV	4657	N	04	730	w	149	67				196	7		993	39		02	20	02	21	3 2	x 1	0			00	23	
									WA	TER	_ v	VIND	8.8	RO-	A	RTEM	P. ℃	Τ	NO	o. T	SPEC		- (	,		•		•		
									COLOR	TRANS.	OIR.	SPEED	ME	TER	OR		WET	COD.	DEP	BS.	OBSERVA									
									0.1	50	20	512	`	83	+	$\rightarrow$	028	1 7	1	5		$\dashv$								
			1		-1			Т		100		1310		Т			Т.	Δρ.	-		- 1				T		_	$\overline{}$		П
			T NO.	CAR TYP		DEPTH	- (m)	ı	Έ	s	٠/	\$1G	MA-T	1	SPECIFIC V		7 C	X 10 <sup>3</sup>		VELO		O 2 ml/l	PO4-P	TOTAL-					рН	ć
		HR 1/10	-		+					+		+		+				X 10°	-		-		1.			Pg - 011	170	-		Ă
				S.	- 1	0.0	0.0		0.30	1 2 2	0.7	1	2.7	1	001/		.							Ì	!					, 1
		06	5	08:		00			038 038	32	837 837		37		0016	685	, (	000		144										
		• • •			TD	00			038	32			36		0016	694	+ C	017		144										
				08	S	0.0	10	0	038	32	836		36				_			144										
					TD	00			029	32			37		0016	602	2 0	033		144										
		0.0	0	08		00			029		842		37							144										
					TD	00			095	32			40		0016	337	7 0	050		144										
				OB:		00			095		811		40							144										
				-	TD	00			130	32			56		0014	854	+ 0	081		144	-									
				OB:		00			130		989		56			_				144										
					TD	00			127	33			67		0013	765	5 0	117		144										
				08:		00			127		130		67							144										
				08		00			129		186		71							144										
				08:	5 T0	00			107		190		71		0013	06-		1.0		144										
				0B:		01			123	33	24 235		75		0012	951	, ,	1150		144										
					rD	01			123	33			75 85		0012	022		181		144										
				08		01			040		40 395		85		0012	033	, (	1101		144										
				08:		01			012		443		88							144										
				08		01			030		419		87							144										
					J D	01			064	33			01		0010	549	, ,	210		145										
				OB:		01			064		660	27			5010	777		- 10		145										
				08		01			115		870		15							145										
				08:		01			276		451		49							146										
				00,	_	0.1				24		٠ ـ	1)							0	, ,,									

													,		,			
REFERENCE		- *	MARSDEN	STATION TIE	ΜE	ORIG	INATOR	s	DEPTH	MAX. DEPTH	0.05	WAVE ERVATIONS	WEA-	CLOUD		1.2	ODC ATION	
CTRY ID. CODE		GITUDE 5	SQUARE	(GMT)	YEAR	CRUISE NO.	STATIC		TO BOTTOM	OF S'MPL'S		HGT PER SE	THER	TYPE AM			LABER	
CODE NO.	1/10	1710		NO DAY HE		+		-									0 4	
318016 EV   465	7 N 04	714 W	_		75 1967		940		0713	07	18	3 2	X1	0 3			0024	
			WAT	R W	IND BAR	0-	TEMP. T	VIS.	NO. 085.	SPEC	IAL							
			COLOR	TRANS DIR.	SPEED MET		W E	COOR	DEPTHS	OBSERV	ATIONS							
			-		TORCE		_	-	- 1									
			DT	SD 17	510 18	3 033	02		22				_					
MESSENGR CAST	CARD	DEPTH (m)	r °c	s ·/	SIGMA-T	SPECIFIC VO		₹ △ D DYN. M	SOL		0 2 ml/l	PO4-P	TOTAL-P	NO2-N	NO3-N	SI O 4-SI	ρH	S.
HR 1/10	TYPE	Derin day				ANOMALY-	-110	x 10 <sup>3</sup>	VELC	CITY		yg - 01/1	μg - σ1/l	µg - 01/1	yg - a1/l	μg - 01/l		_ c
WW 07.00																		
l I	STD	0000	0072	3284	2635	00168	56	0000	14	496		' '						
075	085	0000	0072	32838	2635					496								
013	STD	0010	0072	3284	2635	00168	47	0017	14	497								
	oBs	0010	0072	32839	2635				14	497								
	STD	0020	0073	3299	2647	00157	31	0033		502								
001	085	0020	0073	32986	2647					502								
	STD	0030	0086	3320	2663	0014	71	0048	14	512								
	085	0030	0064P		2583P													
	OBS	0040	0098	33380	2677					522								
	085	0043	0080	33425	2681	0010		0073		515 524								
	STD	0050	0091	3369	2702	00104	168	0073		524								
	085	0050	0091	33691 33743	2702 2702					557								
	OBS	0056 0064	0160 0109	33759	2702					536								
	085	0064	0109	3377	2706	0010	36	0098		548								
	STD OBS	0075	0132	33769	2706	0010	. 50	0070		548								
	STD	0100	0150	3390	2715	00092	269	0123		562								
	oBs	0100	0150	33900	2715				14	562								
	STD	0125	0159	3407	2728	00080	)44	0144	14	572								
	085	0125	0159	34071	2728					572								
	OBS	0140	0159	34150	2734					576								
	STD	0150	0208	3423	2737	0007	202	0163		600								
	085	0150	0208	34232	2737			-1		600								
	STO	0200	0291	3448	2750	00060	146	0197		648								
	085	0200	0291	34482	2750					648								
	OBS	0235	0322	34622	2758	0005		0224		669								
	STD	0250	0352	3469	2761	0005	1 2 1	0224		685								
	OBS	0250	0352	34687	2761	0004	410	0248		730								
	STD	0300 0300	0433 0433	3490 34900	2769 2769	0004	+17	0246		730								
	085 STD	0400	0419	34900	2772	0004	278	0292		741								
	OBS	0400	0419	34912	2772	0004		0-71		741								
	STD	0500	0402	3493	2775	0004	062	0334		751								
	085	0500	0402	34929	2775			-		751								
	STD	0600	0389	3493	2777	0003	989	0374		762								
	oBs	0600	0389	34932	2777				14	762								
	085	0695	0381	34934	2777				14	775								
	505																	

FERENCE	_	,																	
	SHIP	LATITU	ns l	ONGITUDE HOOM	MARSDEN SOUARE	STATION TO	ME		NATOR'S		DEPTH	MAX.		WAVE SERVATIONS	WEA-	CLOUD			NODC
IV ID.	CODE		1/10	1/18 E E	10. 1.	MO DAY H		CRUISE NO.	NUMBE		BOTTOM	OF S'MPL'S		HGT PER SE	1000	TYPE AM	,	2	AOITATI BBMUN
18016	ΕV	4657	_	4659 W			89 1967	00	941		1180		_	<del>                                      </del>			<del> </del>		
грого	) L V	1 4001	N 1 O	H ECOP	149 66 WA			1 410 7	EMP. "C		1189	11	19	3 2	X1	0 3	1		002
					COLOR		SPEED MACTE	J-	WET	VIS.	NO.	SPEC OBSERV	IAL						
					CODE	TRANS. DIR.	FORCE (mbs		BULB	CODI	DEPTHS	OBZEKY.	AIIUNS						
					DT	SD 19	515 19	6 039	03:	7	25								
	MESSENO		0.180	i		1				5 A D	1			T				1.	T
	TIME	NO.	CARD	DEPTH (m)	ı °c	s ·/	SIGMA-T	ANOMALY-	X107	YN. M	. VELO	JND	02 ml/l	PO4-P Pg + at/I	101AL-P μg = α1/I	NO2-N μg - σ1/‡	NO3-N µg - al/l	\$1 O4\$1 ug = 01/	p H
	HR 1/1	0			-					x 10 <sup>3</sup>				1			pg - 0171	74	-
		1	C+D	0000	005/	2302	2/2/	001/0	.						I			1	
	0.8	10	STD OBS	0000	0056 0056	3282 32819	2634	00169	10 (	0000		488							
	0.0	, 9	STD	-	0050	3299	2634 2648	00155	00 (	0.17		488							
			0BS	0010	0050	32990	2648	00155	80 (	0016		490 490							
	0.0	12	085	0014	0129	33046	2648					527							
	0.0	-	STD		0104	3310	2654	00150	17 (	0032		517							
			OBS	0020	0104	33103	2654	30130	• ' '			517							
			OBS	0029	0040	33232	2668					491							
			SID		0059	3323	2667	00137	95 (	046		500							
			OBS	0030	0059	33230	2667			,		500							
			OBS	0043	0050	33450	2685					501							
			STO		0086	3348	2685	00120	81 (	072		519							
			085	0050	0086	33475	2685					519							
			OBS	0059	0031	33609	2699					498							
			STD		0110	3380	2710	00097	28 (	099		539							
			085	0075	0110	33804	2710					539							
			STD	0100	0167	3406	2727	00081	59 (	121		572							
			085	0100	0167	34061	2727					572							
			STD	0125	0205	3427	2741	000688	81 (	140	14	595							
			OBS	0125	0205	34270	2741				14	595							
			STD	0150	0265	3443	2748	00061	69 (	157	14	628							
			085	0150	0265	34431	2748				14	628							
			STD		0328	3464	2759	00052	15 (	185	14	666							
			OBS	0200	0328	34638	2759				14	666							
			STD		0380	3475	2763	00049	08 C	210	14	698							
			OBS	0250	0380	34753	2763					698							
			STD		0416	3485	2767	00046	30 (	1234		723							
			085	0300	0416	34847	2767			_		723							
			STD		0432	3490	2769	00045	34 (	280		747							
			OBS	0400	0432	34897	2769					747							
			STD		0423	3491	2771	00044	75 (	325		759							
			OBS	0500	0423	34905	2771	0001-	. 7			759							
			STD		0423	3493	2773	00043	97 (	369		776							
			OBS	0600	0423	34929	2773	00043				776							
			STD OBS	0700 0700	0409 0409	3493 34930	2774	00043	21 (	413		787							
			STD		0396	34930	2774 2776	00042	70 /	1456		787 798							
			0BS	0800	0396	34929	2776	00042	, 0 (	, 706		798 798							
			STD		0390	34929	2776	00042	77 (	499		798 812							
			OBS	0900	0390	34932	2776	00042	,,	, , ,		812							
			STD		0381	3493	2777	00042	60 (	542		825							
			OBS	1000	0381	34932	2777	30072		,,,,,		825							
			STD		0370	3494	2779	00041	56 (	584		837							
			OBS	1100	0370	34940	2779	JUU-11	,, (	, , , , , 4		837							
			085	1149	0369	34942	2779					845							

REFERENCE		-		MARSDEN	STATION TIA	45	ORIGINATI	28.6	DEPTH	MAX.		WAVE	WEA-	CLOUD	-		NODC	
CTRY ID. CODE	LATITU	DE LO	NGITUDE 불월	SOUARE	(GMT)	YEAR	CRUISE STA	TION	10	DEPTH		ERVATIONS	THER	CODES	}		STATION	
CODE NO.	ļ-:	1/10	1/10 =	10" 1"	MO DAY HR	1/10	NO. NU	ABER	BOTTOM	S.W br.2	DIR.	HGT PER SEA	CODE	TYPE A W	1	-	NUMBER	
318016 EV	4657	N 04	645 W			03 1967	9942		0732	07	19	3 2	X1	0 3			0026	
				WAT		SPEED BAR		VIS.	NO.	SPEC								
				COLOR	TRANS. DIR.	OR IMBI		VET COD	DEPTHS	OBSERVA	NOIT							
				DT	SD 19	S15 20	0 050 0	044 7	20									
MESSEN	ca				30 17	217   20		<b>≥</b> △ □	1			T						Τ,
TIME	₽ NO.	CARD TYPE	DEPTH (m)	T *C	s */	SIG M A T	SPECIFIC VOLUME ANOMALY—\$10?	DYN. M x 10 <sup>3</sup>	. AFFO		0 2 ml/l		OTA L-P	NO2-N	NO3+N ug - at/1	SI O4-9		8
HR 1/	10		<del> </del>					1.0	-			-					+	+
1	I		2222	01.75	2207	24.01	0017333	0000	1 1 4 5	- 1				1		1		1
1	03	STD OBS	0000	0175 0175	3287 32870	2631 2631	0017233	0000	145									
1	0 3	STD	0010	0065	3321	2665	0013982	0016										
		085	0010	0065	33210	2665	0013702	0010	144									
		STD	0020	0000	3339	2683	0012282	0029										
01	01	085	0020	0000	33390	2683			144	474								
		STD	0030	0016	3355	2695	0011150	0040	144	485								
		085	0030	0016	33548	2695			144									
		STD	0050	0067	3372	2706	0010123	0062										
		085	0050 0066	0067 0316P	33718 3475P	2706 2769P			145	514								
		08S STD	0075	0195	3419	2769P 2735	0007427	0084	145	5.8.2								
		085	0075	0195	34185	2735	0001421	000	145									
		STD	0100	0262	3440	2746	0006348	0101										
		085	0100	0262	34400	2746			146	618								
		STD	0125	0375	3463	2754	0005676	0116	146	674								
		085	0125	0375	34629	2754			146	674								
		STD	0150	0451	3478	2757	0005384	0130										
		085	0150	0451	34776	2757				712								
		085	0170	0389	34690	2757		0.157	146									
		STD	0200	0373	3471 34710	2761	0005114	0156		686								
		085	0200 0250	0373 0390	34710	2761 2764	0004876	0181		686 702								
		STD 085	0250	0390	34771	2764	0004076	0181		702 702								
		STD	0300	0425	3486	2767	0004638	0205										
		085	0300	0425	34859	2767	555.556	0-0.		727								
		OBS	0365	0472	34936	2768				758								
		STD	0400	0460	3494	2769	0004531	0251	147	759								
		085	0400	0460	34940	2769				759								
		STD	0500	0420	3491	2772	0004382	0295		758								
		OBS	0500	0420	34913	2772				758								
		STD	0600	0408	3492	2774	0004263	0338		770								
		085	0600	0408	34924	2774	0004100	0301		770								
		STD	0700	0397	3493 34930	2776 2776	0004188	0381		782 782								
		08s 08s	0700 0705	0397 0397	34930	2776				782 783								
		005	0705	0397	34730	2110			14	100								

ERENCE	SHIP	LATITU	105	LONGITI	UDE	CTR	MARSDEN	T	STATION 1G MT	TIME	YEAR		GINA		$\Box$	DEPTH	MAX. DEPTH	Das	WAVE SERVATIONS	WEA	ų. C	COOES			NOOC
F NO.	CODE	LATITO	1/16	LONGITI	1/10	DRIFT	10° 1	-		HR,1/10	TEAK	CRUISE NO.		MBER		BOTTOM		DIR.	HGT PER SE	1 000	15	PE AMT		2	TATION
18016	ΕV	4657	N C	0463	1 W		149 6	6 (	05 15		1967		994	3		0330	0.3	20	2 2	X 1		0 3			002
-,					,	' '	_	WATE	R	WINO	BAR	AIR	TEM	. °C	m	NO.			- (- 1	1	'		'	- 1	002
								OR	TRANS. DIR	SPEED	MET	ER DR		W E T BULB	VIS. CODE	OBS. DEPTHS	SPEC	TIONS							
							co	$\rightarrow$		FORC	(mp	-+	$\rightarrow$	-	Ш										
		,				-	0	T	SD 20	515	20	0 05	1	045	7	34	Щ,				_				
	MESSENG TIME	CAST	CARO	D	EPTH (	m)	1 °C		s ·/	SIG	MA-T	SPECIFIC V	OLUM	. ∑ DYI	△ D N. M. 10 <sup>3</sup>	SOL	JND	O 2 ml/l	PO4-P	-14101		02-N	NO3-N	5104-5	
	HR 1/1	0 7	TIFE			-						Allowing		X	103	1 4570	Jein		μg = a1/1 .	yg - o1/	פע וי	- al/l	νg - α1/l	μg - ot/l	1
						_ ]											1								
			ST		0000		019		3312		49	0015	494	0.0	000		556								
	11	. 6	085		0000		019		33120		49						556								
	000		085		000		018		33270		62	0013	227	0.0			555								
		10	STO		0010		028 028		3349 33490		72 72	0013	וככ	00	14		599								
		, 0	08s		001		036		33810		90						599 638								
			STI	_			039		3383		88	0011856		6 002			655								
			oBs		0020		039		33829		88	0011		3(	, _ 1		655								
			OBS		0025		040		33815		86						658								
			ST	D	0030	0	039	5	3381	26	87	0011	948	00	39		655								
			OBS		0030		039		33810		87					14	655								
			OBS		0034		038		33790		87						649								
			085		0040		052		34010		88						715								
			085		0046		043		34110		06	0010	1 / 2	0.0	1		680								
			ST		0050		046 046		3414 34140		06	0010	143	00	61		690								
			085 085		005		044		34210		06 14						690 684								
			085		005		031		33930		04						626								
			085		006		049		34310		16						708								
			ST		007	5	034	0	3433		34	0007	548	00	83		646								
			OBS		0075		034	0	34330		34					14	646								
			085		0085		040		34490		40						676								
			085		009		044		34510		37						696								
			STI		0100		044	-	3455	5 274	2740 2740 2741 2743 2742	0006	945	0 1	101		696								
			085		0100		044		34545								696								
			08S 08S		010		043 044		34545								693 699								
			ST		0125		044		3458	_		0006	804	0.1	118		704								
			OBS		0125		044		34580		42	0000		•			704								
			OBS		0139		041	3	34600		48						691								
			OBS		0140	0	041	8	34640	27	50						694								
			STI	D	0150	0	042	0	3469	27	54	0005	736	0 1	134	14	697								
			OBS		015	0	042	0	34685	27	54					14	697								
			085		015		044		34702		52						708								
			OBS		017		045		34778		57						718								
			OBS		019		045		34770		56						722								
			085		0199		046		34820 3481		59 58	0005	371	ο.	162		725 727								
			STI 085		0200		046 046		3481		วช '58	0000	١١١	U.	- 02		727								
			085		020		044		34840		63						719								
			085		021		046		34850		62						728								
			085		022		045		34830		61						728								
			STI		025		043		3486	_	65	0004	728	0	187		724								
			OBS		025		043		34859	27	65					14	724								
			ST	D	030	0	044	0	3489	27	68	0004	571	04	210		733								
			OBS		030	0	044	0	34890	27	68					14	733								

E SHIP			L	E MAR	DEN	STATION THE	WE Y	EAR	DRIGIT	_	_	DEPTH	MAX. DEPTH OF		WAVE SERVATIONS	WEA-	CODES			NODC STATION
CDDE	LATIFE		LONGITUDE	2 300		MD DAY HI		K-MIN	CRUISE NO.	NUM	BER	BOTTOM	S.W. br.	S DIR.	HGT PER SE	CODE	TYPE AM	·τ		NUMBER
D.   COUL		1/10	1/10	-10	1				<del>    -</del>				-	2.0	2 2		0 3		1	0028
16 EV	4657	7 N	04610 W	149				<u>967</u>		944		0292	0.3	20	2 2 1	x1	1 013	'	,	0020
					WAT	ER W	IND	BAR		_	V15.	NO.	SPE	CIAL						
					COLOR	TRANS. DIR.	SPEED	METI (mbi			LET CODE	DEPTHS	OBSER	ZHOITAN						
					CODE		FORCE	-		+		- 1								
					OT	50 20	506	20	0 090	0	80 7	31_	L					1	т	
MESSEN	GR a.e.	CARD							SPECIFIC VOL	UME	≨ ∆ D DYN. M		DND	O 2 ml/	PD 4-P	TOTAL-P		NO3-N	\$104-	
TIME	O NO.	TYPE	DEPTH (m	,   '	*℃	5 %.	SIGMA	1-1	ANOMALY-	(107	X 103	. AET	DCITY	0 2 1117	yg - ot/1	μg - 01/l	μg - 01/1	μg - σ1/l	yg - at	
HR 1/	10						-					$\top$								
												1	-10		1	ı	1	'	1	
		ST			541	3376	266		00138	23	0000		710							
1	33	obs			)541	33760	266				00.17		710							
		ST			500	3378	267		00132	31	0014									
		085			500	33780	267						696							
0	00	085			491	33781	267						692							
		OBS			1559	34100	269						725							
		OBS			)558	34103	269		00113		0037		725							
		ST			)564	3414	269		00112	/ 1	0026		728							
		OBS			)564	34139	269						737							
		085			0582	34200	269		00107	2.	0037		727							
		ST			0554	3421	270		00106	36	003		727							
		OBS			0554	34210	270						724							
		OBS			0546	34210	270						726							
		OBS			0548	34258	270						727							
		085			0548	34260	270						727							
		085			0548	34260	270		00096	50	0057	_	722							
		ST			0532	3431	271		000 70	79	000		+722							
		085			0532	34310	271						707							
		089			0490	34373	272						4705							
		085			0479	34432	272		00070		007		4702							
		51			0468	3445	273		00079	22	007		4702							
		089			0468	34451			0007	76	009		4692							
		S1			0432	3449	27:		00072	. / 4	009	-	4692							
		089			0432	34490							4690							
		089		-	0418	34577			00065	2.2	011		4698							
		S			0434	3460	274		00005	20	0.1		4698 4698							
		089			0434	34595							4701							
		085	-		0435	34665 34760							4735							
		083		_	0512 0503	34719							4732							
		089		-	0458	34719	27		00061	04	013		4713							
			TD 015		0458	34690			0000		0-5		4713							
		089		_	045 <b>8</b> 0467	34737							4719							
		083			0467	34740							4721							
		08:			0461	34720							4719							
		08:			0431	34732							4708							
		08	_	_	0431	3478	27		0005	229	015		4711							
					0431	34775			0000				4711							
		08:	•		0431								4720							
		08:	-		0437	3485	27		0004	777	018		4723							
					0437	34851			5004		<i>3</i> - <b>4</b>		4723							
		0B.			0434								4726							
			5 UZ f	,	V474	2401		J .												

	CODE	LATI	TUDE 1/10		1/10 E	MAR:	ARE 1"	TAT?	ION TI		YEAR	CRUISE NO.		TOR'S ATION IMBER	DEPTH TO BOTTON	MAX. DEPTH OF S'MPL"S		WAVE SERVATION:		WEA- THER CODE	CLO	DES		5	NODC TATION TUMBER
6	Eν	472	1 N	04	610 W	149	76	05	15   1	.68	1967		994	5	0357	03	25	2 3		~ 1					
							WA		W	IND	BAR	, ,	AIR TEMP	P. *C	NO.		_	2   3	- 1	X 1	0	3			0029
							COLOR	TRANS.	DIR,	SPEED	M ET	ER (		WET COD	0.00	SPEC OBSERV									
									-	FORCE	-	-+-	_ +-	BULB											
ſ		_	_	-			DT	SD	23	502	19	3 0	56	050 7	28										
l	MESSENG	CAST	CA		DEPTH (m)	1	*C	s	٠/	SIGN	IA-I	SPECIFIC	VOLUME	E A D	501	JND	O 2 m1/1	PO4-P	to	TAL-P	NO2-	N N	103-N	SI Q4-Si	
ŀ	HR 1/10	Ď	-			-		ļ				ANOM	ALY-X107	x 10 <sup>3</sup>	, AETO	CITY	O 2 m 1/1	μg - ο1/1		• 01/1	и <b>д</b> - а		g - a1/l	yg - ot/l	ρН
ì								1										1	_			+	- 1		_
				TD	0000	0	309	33	24	265	50	001	5446	0000	14	606		l	1	- 1		ı	- 1		1
	16	8	08		0000	0	309	33	240	265	50			0.00		606									
				TD	0010		156	335		268	38	001	1846	0014		545									
			08	_	0010		156	335		268					14	545									
	00	n	0 B	TD	0020 0025		428	338		269		001	1663	0025		669									
	0.0	•		TD.	0025		448 390	339		269						678									
			08		0030		390 390	338		269		001	1448	0037		654									
			08	-	0037		186	337		269						654									
			S	TD	0050		495	342		270		000	9995	0058		565 706									
			08	5	0050	0.	495	342		270		000	,,,,	0000		706									
			08		0057	0 :	360	340	)55	271	0					548									
			OB		0067		351	340		270	9				146										
				TD	0075		499	342		271		000	9542	0083	14										
			0B 0B		0075 0080		499	342		271					147										
			0В.		0087		410 340	342 341		272					146										
			ОВ	_	0090		393P	345		274					146	646									
				TD	0100		226	341		272		0008	2003	0105	145										
			0B:	5	0100		226	341		272		0000	,0,5	010)	149										
			08	5	0103	0.2	12	341		273	_				145										
			0B:		0116	02	79	342	75	273					146										
			0B.		0118		260	342		273	7				146										
			5		0125		85	343		273	7	0007	7239	0124	146										
			0B;		0125		285	343		273					146	31									
			5		0135 0150		25 175	345		274					146										
			0B9		0150		175	345 345	-	274		0006	591	0141	146										
			0В	_	0160		85	344		274					146										
			089		0170		25	345		275					146										
			089	5	0175		96	346		275					146 146										
			0B	_	0187		36	347		275					147										
			51		0200		40	347	6	275		0005	438	0171	147										
			0В9		0200		40	347		275	7				147										
			S1		0250	04		348		276		0004	761	0197	147										
			0B5		0250	04		348		276					147										
			089		0300		33	348		276	-	0004	554	0220	147										
			0B5		0320	04		348		276					147										
			085		0340	04		348		276					147										
					55.0	- 4		740	7 1	277	U				147	33									

REFERENC	—— SHIP	LATITU	IDF	LONGITUDE	MAR! SQU	DEN	STATION TIN	AE YEA	AR ,	ORIGINA	ATOR'S	_	DEPTH	MAX. DEPTH OF	08:	WAVE SERVATIONS	WEA-	CODES	-	ST	NODC TATION UMBER
TRY II	O. CODE	:	1/10	1/10	Z 10*	1. 7	MO DAY HE	.1/10		NO. N	UMBER	!	BOTTOM	S'MPL"	DIR	HGT PEP SE	CODE	TYPE AM			DIVIDEA
2100	16 EV	4743		04605 W	149	76	05 15 1	90 19	67	994	46		0662	06	26	2 3	l xo	1013			0030
3 110 0	I OI LV	1 414.	. 14 1	J 4005 M	12.7	WAT		ND	BARO	A ID TEA		vis.	NO.	SPE	CIAL						
						COLOR	TRANS. DIR.	SPEEO ,	(mbs)	DRY	W ET BULB	leand	OBS. DEPTHS	OBSERV	ATIONS						
								· Oxci	_	+-+	044	. 7	22								
	,					DT	SD 23	508	193	056			<del></del>			-					
	MESSEN	GR CAST	CARD	DEPTH (m	, т	°C	s */	SIGMA-	-1	ANOMALY-XI	M.E   3	A D	VELO	JND	02 ml/	PO4-P pg = 01/1	TOTAL=P pg - al/l		NO3-N yg - at/l		pH
	HR 1/	10	TYPE						-			x 10 <sup>3</sup>	+		_	-		<del>                                     </del>			-
								ļ			1							l		1	+
	,		ST	D 0000	) (	261	3312	2644		001594	0 0	0000		584							
	1	90	OBS	0000		261	33123	2644						584							
			OBS			262	33123	2644						585 561							
	0	01	OBS			201	33312	2664		000057	2 6	0012		598							
			ST			260	3410	2722		000856	2 (	1012		598							
			OBS			)260 )273	34098 3429	2736		000722	3 (	0020		608							
			ST			)205P		2678	-	000122	, ,										
			OBS ST			285	3441	2745		000642	4 (	0027	14	617							
			089			285	34410	2749					14	617							
			083	·		297	34461	2748	3				14	624							
			083			0310	34411	2743	3					629							
			083		7 (	301	34526	2753	3					628							
			ST		) (	317	3447	2747	7	000625	0 (	0040		634							
			085	0050	) (	0317	34472	274						634							
			OBS	0069		305	34478	2749			_			632							
			S1			0302	3450	275		000590	) 8 (	0055		633							
			OBS		_	0302	34502	275	_	000530		0069		633							
			S1		-	0300	3458	275		000530	) )	000		+637							
			OBS		-	0300	34582 3461	275		000531	7	0082	_	652							
			S1	-		0325	34613	275		000001	. ,	0002		+652							
			OB:			0343	34613	276		000508	36	0099		+665							
			S.			0343	34669	276		00000				+665							
			0B:	D 020	-	0351	3471	276		000490	)4	0120		+677							
			OB:		-	0351	34709	276		,				4677							
				ro 025		0371	3473	276		000498	9 1	0149		+694							
			0B:		-	0371	34731	276	2					4694							
				D 030		0392	3480	276	6	000474	+1	0169		4712							
			OB:	030		0392	34798	276						4712							
			S.	rD 040		0412	3486	276		000456	66	0216		+738							
			OB:		-	0412	34863	276		000/5		037		4738 4761							
				TD 050	-	0428	3490	277		000456	5 4	026		4761 4761							
			0В:	-		0428	34901	277 2 <b>7</b> 7		00044	1 5	0306		4775							
			_	TD 060		0420	3492 34922	_		00044	ر ـ	0200		4775							
			OB.			0420	34922							4783							
			ОВ	5 065	U	0420	34722	211	-				•								

CODE NO. CODE . LOS THER CODE NO. CODE . LOS THER CODE NO. CODE NO	crono	
	CODES	NODC STATION NUMBER
318016 EV 6803 N 06603 U 140 06 05 15 000 U	TYPE AMT	
WATER WIND AND ARTEMPT V	0 3	0031
COLOR TRANS. CIR. SPEED MAKEER DRY WET VIS. OBS. COPE (Imba) BULB BULB CODE CEPTHS OBSERVATIONS		
TIME O'NO. TYPE DEPTH (m) T C S */. SIGMA-T SHCIFIC VOLUME STAND O SOUND O O MI/I PO4-P TOTAL-P NO		04-S1 pH C
STD 0000 0409 3398 2699 0010809 0000 14659	' '	, ,
209 OBS 0000 0409 33976 2699 14659 STD 0010 0367 3395 2701 0010611 0011 14662		
STO 0010 0367 3395 2701 0010611 0011 14642 OBS 0010 0367 33950 2701 14642		
STD 0020 0264 3417 2728 0008025 0020 14603		
001 OBS 0020 0264 34174 2728 14603		
OBS 0021 0252 34169 2729 14597 STD 0030 0269 3427 2735 0007347 0028 14408		
086 0030 0360 3107		
08S 0030 0269 34270 2735 14608 08S 0037 0265 34370 2744 14609		
OBS 0046 0313 34400 2742 14631		
510 0050 0293 3443 2746 0006325 0041 14624		
OBS 0050 0293 34434 2746 14624 OBS 0057 0289 34470 2749 14624		
OBS 0057 0289 34470 2749 14624 STO 0075 0326 3453 2751 0005913 0057 14643		
OBS 0075 0326 34530 2751 14643		
STO 0100 0321 3459 2756 0005435 0071 14646		
0BS 0100 0321 34590 2756 14646 STD 0125 0344 3465 2759 0005203 0084 14661		
086 0136 0374 34663 0004 14661		
STD 0150 0356 3469 2760 0005091 0097 14670		
OBS 0150 0356 34685 2760 14670		
STD 0200 0387 3478 2765 0004716 0122 14693		
OBS 0200 0387 34782 2765 14693 STD 0250 0413 3483 2766 0004653 0145 14713		
000 0000		
STD 0300 0399 3483 2767 0004606 0168 14715		
OBS 0300 0399 34826 2767 14715		
OBS 0325 0415 34858 2768 14727		
0BS 0368 0404 34872 2770 14729 0BS 0372 0414 34875 2769 14734		
OBS 0372 0414 34875 2769 14734 STO 0400 0410 3486 2769 0004574 0214 14737		
OBS 0400 0410 34859 2769 14737		
OBS 0450 0394 34846 2769 14738		
STD 0500 0406 3486 2769 0004620 0260 14752 OBS 0500 0406 34860 2769 14752		
086 0630 0200 24060 0777		
STD 0600 0418 3491 2772 0004489 0306 14774		
OBS 0600 0418 34909 2772 14774		
OBS 0630 0423 34909 2771 14781		
STD 0700 0411 3491 2772 0004506 0351 14788 OBS 0700 0411 34909 2772 14788		
OBS 0700 0411 34909 2772 14788 STD 0800 0400 3491 2774 0004450 0395 14800		
OBS 0800 0400 34912 2774 14800		
STD 0900 0392 3491 2774 0004493 0440 14813		
OBS 0900 0392 34906 2774 14813		

																										٦
REFERENCE			T			<u> </u>	MARSDEN		STATION TH	ΑE				TOR'S		OEPTH	MAX.		SER'	A VE VATIONS	WEA-	COOES		5	NODC	
CIEY IO.	COOE	LATITUE		LONG	ITUOE	NOCH	SOUARE		(GMT)	100	YEAR	CRUISE NO.	\$1 N	MOITA!		BOTTOM	S'MPL"			ST PER SEA	CODE	TYPE A M	τ	N	UMBER	_
CODE NO.		<u> </u>	1/10		1710	-	10° 1		0 DAY HR		1967	-	994		_	1170	11	23	12	2	ΧO	0 3			0032	2
31/8016	EV	4824	N	046	00 W	1 1		6 C		1NO	BARG	A1	IR TEM		ΤÌ	NO.	_	CIAL	ľ							
							COL		RANS OIR	SPEED	METE	R D	RY LB	WET	CODE	200	OBSER	ATIONS								
							Co	DE	(m)	FORCE	+-		$\rightarrow$		<del>  -</del>	1			1							
							D	7	SD 23	515	20	7 03	33	022		21			1			T		1,00	Т	_
	MESSENGI TIME HR 1/10	φ NO.	CAF		DEPTH (	(m.)	2 1		s ·4.	SIG	MA-T	SPECIFIC	VOLUI	ME D	∆ 0 yn. M x 10 <sup>3</sup>		OCITY	O 2 ml/	1	PO4-P yg - 01/1	10TAL-P 90 01/1	NO2-N µg - at/l	NO3-N NO3-N	SI O4-51		_
						1				1				.	•	1	626		ı	1		1	1	1		
				TD	000		033		3381		92	001	138	6 (	000		626									
	23	0	ОВ	-	000		033		33810	_	92						628									
			ОВ		000		033		33845 3449		738	000	706	2 (	009		672									
				TD	001		042		34490		138	300		- '			672									
	0.0	) 2	08	55 5TD	001		042		3461		747	000	625	8 (	016	. 14	677									
			08		002		042		34605		147					14	677									
				10	003		04		3465	2	751	000	588	4 (	0 2 2		678									
			DE		003		042	22	34652	2	751						+678									
				STD	005	0	04	12	3465	2.	752	000	580	3 (	0034		677									
			OE		005	0	04		34652		752						4677 4667									
			5	GTS	007		03		3466		756	000	541	8 (	0048		4667									
			ΟE		007		03		34660		756	000	404		0061		4663									
				T0	010		03		3470		761 761	000	4,0	,	,00,		4663									
			OE	-	010		03		34697 3477	_	766	000	449	9 1	0072		4670									
				OTO	012		03		34770		766	000	,				4670									
			OE	STD	012		03		3482	_	768	000	435	1	0084	4 1	4682									
			OE		01:		03		34815		768	• • •					4682									
				510	020		03		3483	2	769	000	429	7	010		4690									
				35	020		03	79	34827		769						4690									
				STD	025	50	03		3483		770	000	)428	3 3	012		4697									
			0.0	BS	025		03		34831		770	000	14.20	20	014		4697 4708									
				STD	030		03		3484		770	000	)429	90	014		4708									
			0	BS	030		03		34843	_	770	000	428	2 2	019		4733									
				STD	04		03		3488	_	771 771	000	1420	0 0	019		4733									
				BS	040	-	03 04		34882 3490	_	772	000	043	14	023		4753									
				STD	05		04		34904		772	00.		• .	•		4753									
				BS STD	06		04		3492		774	000	042	70	047	7 1	4769									
				BS	06			06	34920	) 2	774						4769									
				STD	07	-	03	98	3492	2	775	000	042	66	032		4782									
				BS	07		03	98	34921		775				• 0		4782									
				STD	08	00	03	89	3492		776	000	042	41	036	_	4795									
			0	Bs	08			89	34923		776			3.0	040		4795									
				STD	09		_	81	3492	_	777	0.00	042	٥0	040		4809									
				BS_	09			81	34924		777	0.0	042	28	044		4822									
				STD	10			74	3493		777	001	U-4-2	20	5-4		4822									
				BS	10			74	34925 3494		779	00	041	44	048		4837									
				STD	11			169 169	3494		779	00		. •	,		4837									
			-	BS	11												. 400									

ERENCE	SHIP				- =	MARSDEN	STATION T			ORIGIN	ATOR'S		DEPTH	MAX.	_	WA	VE	1415.	7	CLOUD	_		
IO.	CODE	LATITU	1/10	LONGITUDE	N DC	SQUARE 10" 1"	MO DAY H		YEAR	CRUISE	STATION		TO BOTTOM	DEPTH OF S'MPL"	1	BSER∨	A TIONS	THE	2 1	CODES			NODC STATION STATION STATION
18016	EV	4840	NI (	04557 W		149 85			 1967		49	_	1737	15	24	1	1		-   ''	0 3			
						WA	TER V	ONIV	BARC	A ID TO		vis.	NO.	SPE		7'2	121	x0	1 1	0 1 3	ľ	- 1	003
						COLOR	TRANS. DIR.	SPEED OR FORCE	METE		W ET BULB	CODE	OBS. DEPTHS	OBSERV	ATIONS								
						DT	SD 22	516	20	3 050	039	7	23			1							
	MESSENGR TIME	S NO.	CARD	DEPTH	(m )	7 ℃	5 */	SIGM	A -T	SPECIFIC VOLU	ME E	∆ D.		ND	O2 ml/		PO4-P	TOTAL-		0 <sub>2</sub> -N	NO3-N	SI 04-S	Ι
	HR 1/10	+					-	-	-		X	103	VELO	CIII		۷	g = a1/1	μg - α1/l	ng	- 01/1	yg - at/l	μg - αI/	ph
		J	ST	000	0	0475	3462	274	ا د ع	000662	4 00	000	146	. 0.6									1
	001	3	OBS	000		0475	34623	274		000002	4 00	000		595 595									
			ST	001	0	0468	3462	274		000659	1 00	007											
			085	001	0	0468	34619	274		/	- 50	- 0 1	146										
			ST			0460	3462	274		000650	9 00	13											
	00	3	085	002		0460	34620	274	+4				146										
			ST			0426	3465	275		000594	8 00	19											
			085	003		0426	34649	275					146										
			\$TC			0408	3467	275		000564	2 00	31	146										
			08s ST0	005		0408	34668	275			_		146										
			085			0392	3469	275		000534	8 00	45	146										
			STO	007		0392 0381	34689	275		000100			146										
			085	010		0381	3474	276		000490	1 00	158	146										
			STO			0393	34737 3480	276		000163			146										
			STO			0399	3484	276 276		000457		69	146										
			085	015		0399	34842	276		000434	1 00	81	146										
			STD			0393	3485	276		000620	2 01	0.7	146										
			OBS	020		0393	34848	276		000428	3 (1	02	146										
			STO			0398	3488	277		000410		2.2	146										
			OBS	025		0398	34875	277		000418	1 01	23	147										
			STD			0398	3487	277		000423	۰ م ۱	44	147 147										
			OBS	0300		0398	34874	277		000423	0 01	44	147										
			STD			0384	3488	277		000416	7 01	86	147										
			OBS	0400		0384	34876	277		000410	. 01		147										
			STD	0500	)	0377	3488	277		000416	1 02	28	147										
			OBS	0500	)	0377	34879	277					147										
			STD			0385	3490	277		0004175	5 02	70	147										
			OBS	0600		0385	34901	277				-	147										
			STO	0700		0393	3492	277		000421	7 03	12	147										
			OBS	0700		0393	34920	277					147										
			STD	0800		0388	3492	277		000422	2 03	54	147										
			OBS	0800		0388	34924	277					147	95									
			STD	0900		0381	3493	277		0004223	3 03	96	148	09									
			OBS STD	0900		0381	34925	277					148										
			085	1000		0372	3493	277		0004205	04	38	148										
			510	1100		0372	34925	277		200/1:			148										
			085	1100		0370 0370	3494 34936	277		0004186	04	80	148										
			SID	1200		0366	3494	277		000422	0.5	<b>1</b> 2	148										
			085	1200		0366	34936	277		0004222	2 05	22	148										
			STD	1300		0362	3495	278		0004154	05	۷,	148										
			OBS	1300		0362	34950	278		0004134	, 05	04	148										
			STD	1400		0357	3495	278		0004173	06	0.6	148										
			OBS	1400		0357	34950	278		00071/2		00	148										
			STD	1500		0351	3495	278		0004156	06	47	148										
			085	1500		0351	34953	278				٠,	148										

REFERENC	E CHIP			-	# MAR	SDEN	STATION TI	ME	YEAR		NATO		_	DEPTH TO	MAX. DEPTH	085	W A	VE ATIONS	WEA-	CLOUE		2.	NODC
IRY ID.	CODE	LATITU	DE   L0	NGITUDE	NAR SOL	- 1	MD DAY H		TEAR	NO.	ITAT2 MUM		-	воттом	S'MPL"			PER SEA	CODE			N	UMBER
-+-	16 EV	4740		47225W	149	1	05 17		1967	9	950		-	0564	0,5	24	9	2	x 2	03			0034
) IIO O	10, 2	1 4140	1. ( 0		,	WAT	ER V	/IND	BARC	O- 1	EMP.		VIS.	NO.	SPE	CIAL							
						COLOR	TRANS. DIR.	SPEED OR FORCE	METE (mbs	R DRY				OBS. DEPTHS	DBSERV	ATIONS							
						DT	50 24	530	07	8 028	0	28	6	26							,	, -	
	MESSEN O	OF NO.	CARD TYPE	DEPTH In		r °c	s °4.	SIGN	1A-I	SPECIFIC VOL	LUME -X10 <sup>7</sup>	₹ Z DYN X	1. M. 10 <sup>3</sup>	SOU		O <sub>2</sub> ml/l		°O4−P g • at/l	101AL-P	ND2-N ug - at/1	NO3-N yg - at/l		ρН
	HR_1/1	0		<del></del>	+			1															
	I	ı	ST0	0000	, (	0153	3347	26	80	00125	69	00	00	14	541								
	1	3.8	OBS	0000		153	33465	26							541								
	-		085	0006		0166	33555	26	86						549								
			STD	0010	) (	0145	3367	26		00109	61	00	12		542								
	01	01	085	0010		0145	33670	26							542								
			STO			0113	3372	27	-	00103	179	00	22		530								
			OB\$	0020		0113	33720	27							530 530								
			085	002		0110	33768	27		00095	.04	0.0	32		536								
			510			0119	3384 33840	27 27		00090	00	O.C	, , ,		536								
			0B5	0030		0119	33852	27							544								
			08S 08S	0040	-	0149	33951	27							552								
			STE			0162	3401	27		00084	76	0.0	50	14	561								
			085	0050		0162	34014	27	23						561								
			085	0069		0276	34240	27	32						617								
			OBS	0070	)	0250	34231	27	34						606								
			STO	0075	5	0259	3427	27	36	00072	290	00	70		611								
			OBS	0083	3	0261	34317	27	40						614								
			OBS	009	2	0246	34360								609								
			ST	010		0261	3436		43	00066	534	00	87		617								
			085	010		0261	34361		43						617								
			OBS	012	-	0283	34445		48				100		631								
			ST			0283	3446		49	00061		-	103 118		632								
			ST		-	0285	3450		52	00058	5 U I	0.	- I C		638								
			OBS	015		0285	34503 34632		'52 '57						667								
			085	017		0342	34632		59	00052	265	0	146		679								
			ST! 085	020	-	0358	34670		59	00002		-			679								
			085 STI	-		0410	3491		73	00040	045	0	169		713								
			OBS	025	-	0410	34910		73						713								
			OBS	026		0431	34910		70					14	723								
			511			0424	3491		771	00042	246	0	19(		727								
			085	030		0424	34910	27	771						727								
			OBS	035	0	0410	34910		773						729								
			ST	040		0399	3492	_	774	00040	014	0.	23		733								
			085	040	0	0399	34918		774						733								
			OBS	045		0388	34918		776			_			737								
			ST		-	0386	3492		776	00039	960	0	47.		+744								
			OBS	050		0386	34919		776						+744								
			OBS	054	0	0389	34920	) 27	776					14	+752								

ID. NO.	CODE	LATITU	IDE 1/10	LONG	SITUDE 1/10	S S	MARS SOU			ION TI		YEAR	CRL	ISE	STA	TOR'S ATION JABER	-	DEPTH TD SOTTOM	DEPTH	H 08		4 TION		WEA- THER CODE	COL	ES			NODC STATION NUMBER
016	EV	4740	) N	047	7255W		49	77			47	196		-	_				S.W.br.	_		PER	SEA		LANT			-	NUMBER
			,		C 22 M	1 1	ا آ	WA			IND				995 TEMI		ᆜ	274	03	74	10	2		X 2	0	3 I			0035
								COLOR	TRANS.	+	SPEED OR FORC	M	RO- ETER Ibs1	DRY BULE			VIS. ODE	NO. OBS. DEPTHS	SPE OBSER	ECIAL VATIONS									
								ОТ	SD	24	5 3 0	0	85	028	3	028	6	21											
	MESSENGE TIME HR 1/10	CAST NO.	CAR TYP		DEPTH (m	,1	1	°С	S	٠/	SIG	MA-T		IFIC V			D.M.	SOL	JND	O2 ml/l		O4-P		DTA LF	NO2-		03-N	5104-5	
1	1710	1-		+		-+	_		-		-		+			- X	0,		-		- 10	- 017	, , ,	9 - 01/1	ng - al	1 20	- at/l	yg + o1/	
J		'	١ ς٠	TD 1	0000		n.	195	33	5.2	26	ρ1	1	112/	. 20			1	- 1				1				ĺ		
	14	7	0B		0000			195		520	26		0(	124	+ 37	00	) ()		560 560										
				τĐ	0010			193	33.	-	26		0.0	124	28	00	12		560 561										
			0B3	-	0010		0]	193		520	26		٠,			00			561										
			S 1		0020			170	33		26	84	00	121	71	00	25		553										
	001	1	089	-	0020			170		33	26							14	553										
			OBS	-	0021			58		10	26							14	548										
			089		0025			91		380	27							14	567										
			S1		0030			178 180	339	949	27								563										
			089		0030			180	339		27	-	0.0	089	30	00	35		565										
			0Bs		0040			218	340		27 27								565										
			085		0047			91		70	27							14											
			ST		0050			97	34		27		0.0	080	nn	00	2	14	574										
			0BS	5	0050		01	97	34	10	27		-			00.	-	149											
			ST		0075		0.2	46	342	28	27		0.0	071	07	00	1	146											
			OBS		0075			46	342	80	27	38						146											
			OBS		0080			41	342		27	39						146											
			085		0085			68	343	_	27							146	517										
			OBS		0090			60	343		27							146	515										
			S1 085		0100			71	344		27	_	0.0	063	56	008	8	146											
			51		0100			71 96	344	-	27							146											
			OBS		0125			96	344		27		00	059	80	010	3	146											
			085		0125			99	344		275							146											
			ST		0150			39	346	_	275		00	0 E 3	71	01.	_	146											
			OBS		0150			39	346	-	275		00	053	/ 1	011	8	146											
			ST		0200		03		347		276		00	050	٥,,	01/	,	146											
			OBS		0200		03		347		276		30	000	74	014	4	146											
			ST	0	0250		04		349		276		00	043	83	016	7	147											
			OBS		0250		04		348		276		00	<b>.</b> , ,	0 )	010	'	147											
			085		0275		04		349		277							147											

REFERE		SHIP	LATITU	D.F	LONG	DE JOURIST	MARS SQU	DEN ARE	STATION T	ME	YEAR	CRUIS	DRIGIN.	TATION		DEPT	OF	۲	OBSER	AVE VATIONS	WEA-	COD	S	5	NODC TATION NUMBER
IRY ODE	ID.	CODE	LATITO	1/10	LOIVE	1/10	10*	1.	MD DAY	8,1/10		ND.	_ ^	UMBE	1	BOTTO	M S'MPL	'S D	II, H	GT PER SEA		TYPE A	MT		
-+		ΕV	4738		047	7255W	149	1	05 17	151	1967		99			040	5 04	. 7	4	2 2	X 2	0	3		0036
J 110	,010	,		.,				WAT	ER '	VIND	BAR		AIR TE		- vis.	NO.		ECIAL							
								COLOR CODE	TRANS. DIR.	SPEEC OR FORC	1 1		DRY BULB	BULB	COD	DEPT		VATID	NZ						
								DT	SD 24	530	0.8	5	033	03		25		_							
		MESSENG TIME HR 1/10	CAST ND.	CAS		DEPTH (m)	1	*c	s */	SIG	I-AM	SPECIF	MALY-X1	ME 07	₹ △ D DYN. A X 10 <sup>3</sup>	·   v	ELOCITY	02	m1/I	PO4-P ug - 01/1	101AL-1				рН
							1			1		١		_		١,	4562	1				1	1	I.	1
				S	ŢD	0000		201	3348	_	678	00	1275	5	0000										
		15	1	08	S	0000		201	33484		678		1 275	0	001		.4562 .4564								
				S	TD	0010		201	3348		678	00	1275	0	001		4564								
				08		0010		201	33484		678	0.0	1040		002		4568								
				S	TD	0020		198	3378		702	00	1049	0	002		4568								
		0.0	1	08	S	0020		198	33780		702						4571								
				0.8	S	0025		1195	34000		720						4576								
				08		0026		1205	34071		725	0.0	0824	. R	003		4580								
				-	TD	0030		0210	3409		726	00	0024	.0	000		4580								
				08		0030		0210	34089		726						14580								
				0.8		0037		208	34112		728 729						14574								
				0.6	_	0040		0192	34111 3421		735	0.0	0741	8	004		14589								
					TD.	0050		0220	3421		735	00		. •			14589								
				0.6		0050		0231	3421		734						14594								
				0.6	_	0060		0231	3422	-	735						14595								
				06	_	0066		0264	3429		737						14612								
				0.0		0072		0263	3430		738						14612								
					55 5TD	0072		0245	3429		739	0.0	070	24	006	7	14605	,							
						0075		0245	3429		739						14605	,							
				0.8		0075		0248	3433	-	742						14609	7							
				0 i		0100		0279	3441		746	0.0	0064	17	008	4	14625	ò							
					STD	0100		0279	3441		746		-				14625	5							
					BS STD	0125		0282	3451		753	0.6	0057	06	009	9	14632	2							
					8 S	0125		0282	3451		753						14632	2							
				_	05 85	0140		0308	3455		754						14646	5							
					85	0145		0334	3457		753						14659								
				_	STD	0150		0335	3460		755	0	0055	28	011		14660								
					85	0150		0335	3460	0 2	755						14660								
					BS	0170		0331	3461		2757						14662								
					STD	0200		0377	3474	2	2762	0	0049	30	014		14688								
					BS	0200		0377	3474	0 2	2762						14688								
					STD	0250		0404	3487		2770	0	0042	88	016		14710								
					85	0250		0404	3486	9 2	2770						14710	-							
					STD	0300		0406	3490		2772	0	0041	04	018	34	14719								
					85	0300		0406	3490	-	2772						14719								
					STD	0400		0399	3493		2775	0	0039	62	022	24	1473								
					BS	0400		0399	3492	5	2775						1473	3							

REFERENCE										_									
CIRY ID. CODE LATIT	UDE LO	NGITUDE NGITUDE	MARSDEN SQUARE	STATION T		YEAR	ORIGIN CRUISE NO.	ATOF	DN .	DEPTH TO BOTTOM	MAX. DEPTH OF	ļ.	WAVE ERVATIONS	WEA- THER CODE	CDDES			NODC	7
318016 EV 473	8 N 04	7225W	149 77			967		53			S'MPL'S		HGT PER SE	<del>^</del>	TYPE A M	7	-  -'	4 U M B E R	-
			WA		MIND	BARO	A ID TE		: T	0600	05	7.4	0 2 1	X2	013			003	7
			COLOR	TRANS. DIR.	SPEED OR FORCE	METE	R DRY	W E	VIS. CODE	CORE	SPEC	ATIONS							
			DT	SD 24	530	089	033	0:	33 6	28									
MESSENGE CAST TIME OF NO. HR 1/10	CARD TYPE	DEPTH (m)	T *C	5 %.	SIGMA	A-T	SPECIFIC VOLU	M E 07	X 103 DY W	. AETO 200		O <sub>2</sub> ml/l	PO4~P µg - a1/I	TOTAL=P µg + a1/I	NO2-N ug - at/l	NO3-N vg - o1/1	SI 04-5		s C
								7					-			_			-
	STD	0000	0149	3336	267	2	001334	0 '	0000	149	538		1	'			!	1	11
157	085	0000	0149	33360	267					149									
	085	0005	0148	33356	267					149									
001	STD OBS	0010	0124 0124	3335 33349	267	_	001326	6	0013	149									
	0BS	0016	0026	33330	267 26 <b>7</b>					149									
	OBS	0018	0045	33449	268					144									
	STD	0020	0035	3345	268		001200	2	0026	144									
	OBS	0020	0035	33449	268	6				144									
	OBS	0025	0026	33471	268					144	88								
	STD OBS	0030	0800 0800	3363	269		001087	5	0037	145									
	085	0035	0099	33629 33648	269 269					145									
	OBS	0040	0084	33672	270					145									
	OBS	0045	0106	33749	270					145 145									
	STD	0050	0110	3381	271		000967	2	0058	145									
	OBS	0050	0110	33811	271			_		145									
	STD	0075	0195	3412	272		000791	9	0800	145									
	OBS	0075	0195	34120	2729					145	81								
	08s 08s	0082 0089	0239	34150	2728					146									
	STD	0100	0289 0249	34230 3427	2730					146									
	085	0100	0249	34272	273		0007206	5	0099	146									
	085	0105	0231	34275	2739					146									
	OBS	0110	0231	34300	2741					146 146									
	STD	0125	0261	3438	2749		0006509	5	0116	146									
	OBS	0125	0261	34380	2749	5				146									
	STD	0150	0289	3447	2749		0006089	5	0132	146	39								
	OBS OBS	0150 0175	0289 0319	34470	2749					146									
	STD	0200	0319	34568 3473	2754 2760		0006125		.1	146									
	085	0200	0390	34730	2760		0005137	,	0160	146									
	085	0225	0425	34810	2763					146 147									
	STD	0250	0419	3480	2763		0004964		185	147									
	OBS	0250	0419	34800	2763					147									
	085	0265	0401	34840	2768					147									
	STD	0300	0438	3491	2770		0004399	) (	208	147									
	08S S <b>T</b> D	0300	0438	34910	2770					147									
	OBS	0400 0400	0413 0413	3491 34909	2772		0004234	- (	252	147									
	STD	0500	0396	34909	2772		2004120			147									
	OBS	0500	0396	34911	2774		0004129	(	293	147									
			- 2 / 0		2114					147	48								

TRY ID.	SHIP	LATITU	DE 1/10	LONGITUDE	20	SDEN		IDN T		YEAR	CRUISE	STATION		DEPTH TO BOTTOM	DEPTH DF S'MPL'S	1	WAVE SERVATIONS	1000	CODE	S	51	NODC IATION UMBER
31801	6 EV	4444	N I	04914 W	149	1				1967		54	-+	0059	1		HGT PER S	t A	TYPE AN	_		_
					, (	WAT			VIN D	T -	A 10 75				00	24	2 3 1	X2	0/3	1	1 1	0038
						COLOR	TRANS.	DIR,	SPEED OR FORCE	METE (mbs	R DRY	WET	CODE	ND. OBS. DEPTHS	SPEC OBSERV							
		,,				DI	SD	18	511	30	5 072	067	6	10								
	MESSENGR TIME HR 1/10	CAST ND.	CARD	DEPTH I	m)	*c	5	٠/	SIGN	1 A - T	SPECIFIC VOLU	07   0	∆ D YN, M X 10 <sup>3</sup>		UND	0 <sub>2</sub> ml/l	PO 4-P µg - 01/1	TOTAL-P µg = q1/1	NO <sub>2</sub> -N µg - al/l	NO3-N ug - at/l	21 O4-21	рН
	184	+	STI 08S 0BS	000	0 (	1567 1567 1531		590 512	25° 25° 25° 258	71 77	002288		000	14 14	706 706 691							
	000	)	08s 08s	001	) (	490		520	258		002183	5 (	022	14	676							
			085	002		275 240 240	329 329	900 902	260 262 262	) 2 2 <b>8</b> 2 8	001745	9 0	042	14: 14: 14:	676 585 575 575							
				0 002 002 002 002 003 003 003	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	240	329 329 330	902 902 929 948 11 110	260 262	02 28 28 51 51 56 56	001745 001460	2 0		149 149 149 149 149 149	585 575							

REFERENCE CTRY ID.	SHIP	LATITU	DE LO	MOITUDE BE	MARSDEN SDUARE	STATION TIN	^E YEAR		TATION	-	DEPTH TD BDTTDM	MAX. DEPTH DF	1	WAVE ERVATIONS	WEA- THER CDDE	CLOUD		ST	ODC ATION UMBER	
CODE ND.	CDDE	•	1/10	1/10 3	10° 1° M	O DAY HR	.1/10	NO. N	UMBER		-	S'MPL'S	DIR	HGT PER SEA	-	TYPE A M	-	-		
31801	6 EV	4442	N 04	900 W	149 49 0	5 20 1	9B 1967	99			0384	_03	24	1 2	X 2	0 3	ì		0039	
					WATE	k W	IND BARG			VIS.	ND. 085.	SPEC	IAL							
					COLDR 1	RANS. DIR.	OR (mbs		BULB	CODE	DEPTHS	DBSERV	ATIONS							
					<del></del>	-+-+	TORCE	_	072	_	24		-							
		,—		<del>,                                      </del>	DT	SD 17	S10   31	5 078	072	6	-		_	T						П
	MESSENG TIME HR 1/10	of NO.	CAPD TYPE	DEPTH (m)	7 %	s ·/	SIGMA-T	SPECIFIC VOLU	ME DYF	∆ D 10 <sup>3</sup>	. AEFD		D2 ml/8	PD4-P yg • et/1	1014L-P pg = 01/I	ND2-N ug - ot/l	ND3-N µg - 01/1	SI D4 = Si yg = et/l	рН	4
									l			1					l	ļ	l	
	1		STD	0000	0350	3285	2615	001874	6 00	00		618								
	19	В	OBS	0000	0350	32850	2615					618								
			OBS	0003	0272	32825	2620				_	585								
			STO	0010	0171	3283	2628	001748	9 00	18		542 542								
	0.0	0	OBS	0010	0171	32 <b>B</b> 33	2628 2642	001620	, oc	35		942 483								
			STD	0020	0035	3289B	2642	001020	4 00	,,,		483								
			OBS	0020	0035 -0062	3301	2655	001496	4 00	51		442								
			STD obs	0030	-0062	33005	2655	001470	, ,,			442								
			085	0038	-0052	33039	2657				14	44B								
			STD	0050	-0052	3304	2657	001472	5 00	080	14	450								
			085	0050	-0052	33040	2657					450								
			085	0057	-0053	33065	2659					451								
			OBS	0064	-0072	33102	2663					444								
			STD	0075	-0078	3311	2664	001408	0 0	116		443								
			OBS	0075	-0078	33110	2664				-	443								
			STD	0100	-0084	3314	2666	001383	1 0	151		445 445								
			OBS	0100	-0084	33138	2666	001371	<b>5</b> 0	186		449								
			STD		-0083	3315 33152	2667 2667	001371	. 5 0	100		449								
			OBS	0125	-0083 -0083	3318	2669	001350	13 0	420		454								
			STD 085	0150	-0083	33178	2669	001550	, , ,			454								
			OBS	0163	-0072	33260	2676				14	462								
			085	0187	-0069	33244	2674				14	468								
			OBS	0196	-0025	33430	2687				14	492								
			STD		-0019	3343	2687	001183	31 0	2 <b>B</b> 3	3 14	495								
			OBS	0200	-0019	33431	2687					495								
			STD	0250	0150	3390	2715	000929	96 0	336	_	587								
			obs	0250	0150	33901	2715					587								
			OBS	0267	0280	34230	2731				14	651								
			085	0272	026 <b>B</b> P		2719P													
			OBS	0281	03B5P		2739P													
			OBS	0292	031BP	-	2720P	00071		17-	7 1 /	684								
			STD		033B	3440	2740	00071	+4 0	37		684								
			OBS	0300	0338	34404	2740 2746					693								
			obs	0325	0348	34491	2146				1.	.095								

	CE T														_						_				
	D. CO		ITUDE	LONG	3007		MARSDEN BANDE	STATIC	MT ME	ME	YEAR	CRUISE	RIGINA	OR'S	_	DEPTH TO	MAX. DEPTH	08	WAVE SERVATIONS	WEA				NOD	c
CODE N	10.		1/10		1/10	° Z	10" 1"	MÓ DA	AY HR	1/10		NO.	NU	MBER		BOTTOM	OF S'MPL'S	D12.	HGT PER S	11110	E TYPE A	_		STATIO 8MUN	
31/80	016 E	V 44	40 N	048	53 W	1	49 48	05 2	0 2	04	1967		995	6		0814	07	24	1 2	X 2	0 3		$\neg \uparrow$	004	40
							WA	-	w	IND	BARC		R TEMP		VIS.	NO.	SPEC	_		,		'	,	00.	+01
							COLOR	TRANS.	DIR.	OR FORCE	METE			W ET BULB	CODE	OBS. DEPTHS	OBSERV	ZHOITA							
							DT	so	14	\$06	30		_	-	_	20									
	MESS	ENGR CA	ST CA	_				1	-	300	1 20			061	6	30							_	_	_
		ME OF NO	S.   YY		DEPTH (	m)	7 °C	\$ *.	٠.	SIGM	A-1	SPECIFIC 1	VOLUMI LY—¥10 <sup>7</sup>	Ďvi	Δ D.	VELO	OCITY	O2 m1/1	PO4~P µg = al/l	TOTAL-I	NO2-N	NO3-N			н
		1710		-		-		-						<del>  ^</del>	103	-	-		1.	39 - 6.51	pg - 001	µg - at/1	µg - at	/	
	1	'	١	TD	0000	0 [	0300	328	ا د	26;	10	0019	210	1		1.0			1	l	I				
		204	08		0000		0300	328		26		0018	1213	00	00		597 597								
				TD	0010		0165	328		263		0017	244	0.0	18		539								
			08		0010		0165	328		263		501.	277	00	10		539								
			S	TD	0020	0	0077	328	8	263		0016	576	0.0	35		502								
		001	08	_	0020		0077	328		263					-		502								
				TD	0030		0060	329		264	+ 3	0016	094	00	51	14	497								
			08		0030		0060	329		264						14	497								
			08	5 TO	0040		-0076	330		265							437								
			08		0050		-0131 -0131	330- 330		266		0014	476	00	82		413								
			08		0069		-0133	331		266							413								
			ОВ		0074		-0092	331		266						144	416								
				ΓD	0079		-0100	3318		267		0013	467	01	17	144									
			08	5	0079	5	-0100	331	80	267	0			_			434								
				ſΟ	0100		-0097	3322		267		0013	165	01	50	144									
			OB:		0100		-0097	332		267						144	440								
			S		0125		-0055	3336		268	-	0012	244	01	82	144									
			08:		0125		-0055	3339		268						144									
			S1 08:		0150		-0034 -0034	334		268 268		0011	936	02	12	144									
			5	-	0200		0104	337		270		0010	347	02	۲0	144									
			08		0200		0104	337		270		0010	741	0-	00	145									
			089	5	0201	l	0089	3368		270						149									
			089		0213		0090	3372	28	270						149	_								
			083		0245		0356	3429		272						146									
			S1		0250		0342	3425		272		0008	308	03	14	146									
			089 089		0250		0342	3424		272						146									
			51		0300		0284 0463	3419		272 2 <b>7</b> 4		0006	904	0.3	6.3	146									
			089		0300		0463	3462		274		0006	006	03	2	147									
			085		0310		0493	3471		274						147 147									
			089		0313		0423	3461		274						147									
			085		0340		0388	3462		275						147									
			085		0361		0460	34B0	0	275	8					147									
			085		0381		0389	3471	-	275						147									
			51		0400		0426	3480		276		0005	191	04	12	147									
			085 085		0400 0470		0426 0464	3480 3492		276						147									
			ST		0500		0460	3492		276 276		0004	720	0/:		147									
			085		0500		0460	3492		276		0004	, 30	040	02	147									
			51		0600		0434	3493		277		00045	518	050	1.0	147 147									
			085		0600		0434	3493		277		-004	-10	0 7 (		147	-								
			ST	0	0700		0421	3493		277		00044	+67	05	53	147									
			OBS		0700		0421	3493	0	277					-	147									
			085		0740		0418	3493	-	277															

	_						F#4.8001 C.	16			RIGIN 4	ATDR'S		DEPTH	MAX.		WAVE	_	WEA-	CLOUD			NODC
REFERENCE TRY ID.	SHI		UDE	LONG	GITUDE LE	SOUARE	STATION TIA	^*	YEAR	CRUISE	2.	TATION	_	TO SOTTOM	DEPTH		ERVA TIO		THER	CODES	_1		STATION NUMBER
ODE NO.	COD		1/10		1/10 2	10" 1"	MD DAY HR			ND.		UMBER	-+		S'MPL'S		HGT PER	SEA	+-	TYPE AM			
318016	S EV	/ 443	9 N	048	343 W				1967		99	57 AP. ℃		1737	15	-24	1   2	l	x2	013	1	- 1	0041
						COLDR		SPEED	- BARO	· -	_	WET	VIS.	NO. OBS. DEPTHS	SPEC	IAL ATIONS							
						CODE	Imi DIR.	FORCE	(mbs			BULB											
						OT	SO 16	S10	30	8 0	72	061	6	35	L		_	_					
	MESSI	HOR CAST	CAR	ID I	DEPTH (m)	ī tc	s ·4.	SIG	MA-T	SPECIFIC	VOLU	ME ∑	A D.		UND	D 2 m1/1	PD 4-		101AL-P µg = 01/1	NO2-N µg - 01/1	NO3-N µg - 01/I	\$1 O4~	
	HR		TYP	E						A110m2	-		(103	766	DCITY		µg − 0		pg - 0.77	pg - 001	pg = 01/1	7,	-
												_		1,	5 ( )			1			I	!	1
				TΟ	0000	0220	3287	26		001	754	7 0	000		562 562								
		213	08.	S TD	0000	0220 0129	32870 3285	26 26	32	001	709	1 0	017	-	523								
			08		0010	0129	32850		32		,			14	523								
				TΟ	0020	0080	3289		39	001	650	1 0	034		503								
		003	ОВ		0020	0080	32890		39	001			050		503 450								
				TD	0030 0030	-0043 -0043	3301 33010		54	001	477	8 0	050		450								
			08 S	TD.	0050	-0077	3316		68	001	371	3 0	079		440								
			OB	S	0050	-0077	33160		68						440								
			OB		0060	-0093 -0077	33190 33250		71 75						435								
			OB S	S TD	0070 0075	-0090	3331		80	001	248	3 0	111		440								
			08		0075	-0090	33313		80						440								
				TD	0100	-0022	3351		94	001	124	4 0	141	_	479								
			08		0100	-0022	33510 3372		94 705	001	n 2 n	0 0	168		479 534								
			08	TD	0125 0125	0085 0085	33722		705	001	020		~ 00		534								
			08		0135	0186	33870		710						583								
			S	TD	0150	0118	3382		711	000	966	8 0	193		555								
			08		0150	0118	33820		711						+555 +659								
			08		0190 0200	0325 0320	34330 3432		735 735	000	751	5 0	236		+658								
			08	5T0	0200	0320	34322		735	000					+658								
			O B		0205	0299	34282		734						+650								
			08		0219	0405	34560		745						4701 4693								
			08	_	0238 0245	0380 0485	34520 34763		745 753						4741								
				STO	0250	0440	3471	_	753	000	586	54 (	269	9 14	4723								
			0.6	35	0250	0440	34710		753						4723								
			OE	-	0255	0530 0428	34870 3473		756 756	000	567	72 (	298		4763 4726								
			O E	016 36	0300 0300	0428	34725	_	756	000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		, - , .		4726								
			DE		0340	0390	34712	2	759						4716								
			Q E		0370	0410	34769		761						4731								
				STD	0400	0388	3475 34750		762 762	000	151:	10	352		4726 4726								
			06	35 5TD	0400 0500	0388 0461	34750		767	000	483	39 1	0402	2 1	4775								
			OB		0500	0461	34915	2	767						4775								
				5T0	0600	0448 0448	3493 34930	_	770 770	000	468	32 (	)45(		4787 4787								
			06	STD	0600 0700	0448	34930		771	000	46	32 (	)496		4798								
			DE		0700	0435	34930		771						4798								
				ST0	0800	0430	3496		774	000	448	B 8	)542		4813								
				BS	0800	0430			774 775	000	)45(	13	058		4813 4828								
				STD BS	0900 0900	0426 0426			775	000	, 4 ) (	,,	0 - 0		4828								
				STO	1000	0414			776	000	)44	54	063		4839								
			01	Bs	1000	0414			776	0.07	367	. 1	067		4839								
				STO	1100	0395 0395			7 <b>7</b> 7 777	000	)44	01	067		4848 4848								
				BS STD	1100 1200	0396			777	000	)44	91	072		4865								
				BS	1200	0396	34950	2	777				_		4865								
				STD	1300	0387			778	000	)44	67	076		4878								
				BS	1300	0387 0382			778 779	001	044	<b>Q</b> 1	081		4878 4893								
				STD BS	1400 1400	0382			779	001	J 44	-	, J		4893								
				STD	1500	0380			779	000	345	51	085	6 1	4909								
				BS	1500	0380		2	779					1	4909								

		ı									_		_															
3   10   10   10   10   10   10   10	CTRY   ID.   COOS	LATITL	1DE	LONG		PRIFT	MARSDEN SQUARE		AOITAT WDJ	TIME TI	YEAR	CRUI					TO	DEPTH	085			WEA	- CLC	QUO			DOOR	C N
The color of the	COOL NO.	•		•		+					_	NO	). 	NUMBER	_	BOT	MOT		DIR	HGT	PER SE	000					NUM8	ER
	1 37/9079 FA	4435	J N C	048	35 W							$\neg$			ᆛ	$\overline{}$				1	2	X 2	0	3		Į	004	+2
							COLO	R TR	ANS. D	IR. SPI	ED MET	ER	DRY	WET	COD!	. 0	BS.	SPEC SBSERV	TAL ATIONS									
							-	+-	-					-	6	-	-		-									
Strong   S	MESSENG	RICAST			DEPTH (n	.		T				SPECI	FIC VOL	UME \$	_	•		ND I			0P	TOTAL	NO	_ N	NON	510. 5		
227	HR 1/10	NO.	TYP	Ε				1		,	IGMA=1	ANO	MALY-	102 D	YN, M X 10 <sup>3</sup>		VELO	ZITY	O 2 mf/l									н
227						.																						
STO   0010   0098   3294   2641   0016222   0017   14511   14611   1	22	7										00	174	14 0	000	)												
003			5	T D	0010	О	0098		3294	2	641	00	162	22 0	017	,	145	11										
STD	00	3																										
OBS									3341	2	673	00	1318	37 0	032		145	56										
STO																												
OBS										â	676	00	129	78 0	045		145	64										
STO																												
STD   0075   0166   3368   2996   0011080   0099   14462   085   0085   0083   0140   33762   2796   14563   14653   14673												00	1223	6 0	070		144	69										
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OBS   O280   O570   34985   2760   14785     STD   O300   O563   3499   2761   O005292   O249   14785     OBS   O320   O525   34920   2760   O14772     OBS   O320   O525   34920   2763   O2763   O												00	0512	8 0.	222													
OBS         0300         0563         34987         2761         14785           OBS         0320         0525         34920         2760         14772           OBS         0338         05533         34970         2763         14779           OBS         0350         0470         34873         2766         14766           OBS         0360         0493         34945         2766         14766           OBS         0360         0493         34945         2766         14766           OBS         0360         0493         34940         2767         14763           STD         0400         0470         34950         2769         14763           OBS         0400         0470         34950         2769         14763           STD         0500         0436         34940         2772         0004363         0343         14765           STD         0600         0430         34940         2773         0004366         14779           OBS         0600         0430         34942         2774         0004366         0430         14792           OBS         0700         0420         34942								3	498	5 2	760						147	85										
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OBS         0360         0493         34945         2766         14766           OBS         0382         0460         34910         2767         14755           STD         0400         0470         34950         2769         0004573         0298         14763           STD         0500         0436         3494         2772         0004363         0343         14765           OBS         0500         0436         3494         2772         0004363         0343         14765           STD         0600         0430         34940         2773         0004397         0386         14779           OBS         0600         0430         3494         2773         0004366         0430         14792           STD         0700         0420         3494         2774         0004366         0430         14792           OBS         0700         0420         34942         2774         0004282         0473         14792           STD         0800         0397         34930         2776         14799         14813           OBS         0900         0391         34940         27777         0004282         0558         <																												
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STO     1200     0384     3495     2779     0004334     0645     14860       OBS     1200     0384     34951     2779     14860       STD     1300     0377     3495     2779     0004333     0689     14874       OBS     1300     0377     34951     2779     14874       STD     1400     0373     34951     2780     0004368     0732     14889       OBS     1400     0373     34951     2780     0004414     0776     14905												000	)439	2 06	02		1484	49										
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7	SHIP	LATITU	DE	LONG	DRIFT FOCTR	M A R	ARE	(	ION TIA		YEAR	CRUISE	DRIGINA \$1	ATIO	N	DEPTH TO BOTTO	DF.	OBS	WAVE SERVATIONS	TH		CLOUD		2.	NODC TATION UMBER
	CODE	·	1/10	<u>·</u>	17/10 G Z	10*	7.	MO	DAY HR			NO.	N	UMB	ER		S'MPL		HGT PER S		-	TYPE A MT		-	
6	EV	4433	N	048	145W	149	48 WAT			04 1	9.67		995 AIR TEN		-	338; NO.	1		1131	X	0	0   3		1	0043
							COLOR	TRANS.		SPEED	BARG METI	ER I	DRY	W E	7 CODE	ORC	OBCER	ECIAL VATIONS							
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							0.1	50	22	506	32	2 0	183	0	72 7	35	⊥	اا							
l	MESSENGR TIME	CAST	C ARD		DEPTH (m)	ŧ	*c	s	٠/	SIGM	A-T	SPECIFIE	C VOLUE	M E	∑ ∆ D DYN. M x 10 <sup>3</sup>		LOCITY	02 mi/l	PD4-P pg - 01/1	TOTAL		NO2=N µg + al/l	ND3=N yg - at/l	SI O <sub>4</sub> -Si μg - σ1/I	рН
	HR 1/10	1,,0.	1176	-		+		-		-			-	-+	X 10°	+				-	-+				1
				.	0000		396	33	0.7	   26;	2 Ω	001	754	4	0000	1.	4641		1	1	- 1	1		1	
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			ST		0010		0290	33		26		001	1597	3	0017		4598 4598								
	003	3	0BS		0010		0290 0404		150 40	26		001	1512	8	0032		4652								
			OBS		0020	-	0404		398	26						1	4652								
			085	5	0025		0332		490	26				_			4623								
			51		0030		0430		64	26		00	1357	2	0047		4668 4668								
			0B5		0030 0041		0430 0344		640 590	26 26							4633								
			51		0050		0375		69	26		00	1271	3	0073	1	4649								
			089	5	0050		0375		685	26							4649								
			089		0070 0075		0115		510	26 26		0.0	1156	4	0103		4536 4545								
			S1 0B5		0075		0131		580	26		00	1170	•	0-0.		4545								
			083		0085	(	0293	33	840	26							4621								
			0В		0094		0201		788	27		001	0968	0	0130		4582 4604								
			0B3	TD	0100 0100		0245		940	27 27		001	0700	J	010		4604								
				T D	0125		0300		14	27		00	0865	2	015		4635								
			0B		0125		0300		140	27							4635 4668								
			OB:		0145 0150		0364 0334		330 25	27 27		00	0815	1	017	_	4655								
			0B:	TD S	0150		0334		250	27		00	0013	-	0-1		4655								
			0В:		0170		0427		510	27	39						4701								
			08		0175		0383		438	27		0.0	0636	7	0.71		4683 4693								
			0B:	TD	0200		0393 0393		57 570	27 27		00	0636	1	021		4693								
			0B:		0220		0417		645	27						1	4707								
			5	TΟ	0250		0385		65		55	00	0572	3	024		4699								
			0B:		0250		0385 0419		+651 +81	27	63	٥٥	0497	7	026		4699. د472								
			0B	TD S	0300		0419		805	27		•	0.,,	•	0-0		4723								
				TD	0400		0454		94	27	70	00	0450	0	031		4756								
			ов		0400		0454		935		70	0.0	01.4.4	. 2	0 2 5		.4756 .4776								
			5 0B	TD	0500 0500		0462 0462		+97 +970		72	00	0444	+ 4	025		4776								
			08		0573		0424		4951		74					1	4773	1							
			5	TD	0600		0429		496		74	00	0423	3 7	040		4779								
			OB	S TD	0600 0700		0429		4960 497		74	٥٥	0424	4 1	044		L4779 L4795								
			0 B		0700		0427		4970		76					1	4795	,							
				TD	0800		0413	3	497	27	77	00	041	74	048		4806								
			08		0800		0413		4970		777 779	00	0408	2.2	052		14806 14815								
			S 0B	TD IS	0900		0396		497 4968		779	00	-0-00	, _	0 - 2		14815								
				ŢΟ	1000		0391		497	2	779	0.0	041	00	056		14830								
			οв	S	1000		0391		4970		779			- ,	٠		14830								
				TD	1100		0382		496 4960		779 779	00	041	94	061		14843 1 <b>4</b> 843								
			08	55 5TD	1200		0382		4960 496		780	00	041	93	065		14858								
			ОВ		1200		0378	3	4960	2 7	780						14858								
				OTO	1300		0375		496		780	0.0	042	42	069		14873 14873								
			08		1300 1400		0375		4960 496		780 780	0.0	043	0.2	073		14873 14889								
			08	5T0 3S	1400		0373		4960		780						14889	9							
				TD.	1500		0370	) 3	497	2 '	781	00	042	90	078		1490								
			OB	35	1500		0370	) 3	4968	2	781						14905	)							

	LATITUDE	LC	NGITUDE 1/10	MARSDEN SOUARE	STATION THE		rear .	OR CRUISE	IGINAT	DR"S	$\exists$	DEPTH TO	MAX. DEPTH	ОВ	WAVE SERVATIONS	WEA-	CLOUD			NODC	N
CODE NO.	1/		" " "	Z 10" 1"	MO DAY HR	,1/10		NO.	NU	MBER		BOTTOM	S'MPL'S	DIR.	HGT PER SEA	CODE	TYPE AMI			NUMBE	R
31/8016 EV 4	4430 N	4 0	4800 W	149 48		19 1	967		9960		Ц	3621	15	19	1 4	×ο	0 3			004	4
				COLOR	TRANS. DIR	SPEED	BARO	OR		WET	VIS.	NO. OBS.	SPE( OBSERV	LIAL ANORS							
				CODE	(m)	FORCE	[mba]	_		ULB	_	DEPTHS									
MESSENGR TIME OF			_	101	50 22	510	339			111	7	41			1					_	
HR 1/10	NO.	TYPE	DEPTH (m)	τ *c	s */	SIGMA	4-T	SPECIFIC Y	OLUME Y-XIO <sup>7</sup>	NYO X	∆ D. 1. M.		DCITY	0 2 ml/l		101AL-P μg = σι/1	NO2-N ug - al/i	NO3-N pg - at/l	\$1 O <sub>4</sub> —		4 6
1770			1				$\neg$			<u> </u>					+ +			-		+-	-H
		ST0	0000	1316	3520	265	3 '	0015	086	00	00	15	017		' '	'	1			'	, ,
019	C	OBS STO	0000	1316 1311	35201 3520	265 265		0015	017	0.0	. 1 6		017								
	C	BS	0010	1311	35201	265		0015	011	00	15		017 017								
003	_	STD	0020 0020	1330 1330	3529 35290	265		0014	759	00	30		026								
003		BS STD	0030	1346	3543	265 266		0014	073	00	44		026 034								
	C	985 STD	0030	1346	35430	266	5					15	034								
	C	985	0050 0050	1256 1256	3542 35420	268 268		0012	470	00	71		007 007								
		85	0058	1268	35468	268	4					15	013								
	C	\$T0 85	0075 0075	1245 1245	3542 35419	268 268		0012	337	01	02		800 800								
		STD	0100	1210	3537	268	7	0012	146	01	33	14	999								
	C	BS STD	0100 0125	1210 1151	35365 3527	268 269		0011	848	0.1	63		999 982								
		85	0125	1151	35265	269		0011	000	01	0,		982								
	C	BS STD	0132 0150	1210 1134	35496 3535	269 270		0011	027	0.1	0.1		006								
	C	BS	0150	1134	35345	270		0011	051	01	91		981 981								
	C	BS	0162	1156	35448	270						14	992								
	С	STD BS	0200 0200	0938 0938	3508 35080	271		0009	777	02	43		915 915								
	C	88	0208	0900	35040	271							902								
	C	)BS \$TD	0215 0250	0925 0686	35150 3483	272 273		0008	021	0.2	88		914 824								
	0	BS	0250	0686	34825	273		0000	021	02	00		824								
		BS BS	0267 0295	0677	34808	273							823								
		STO	0300	0723 0705	34988 3495	274		0007	434	03	26		848 841								
		BS	0300	0705	34950	273	9					148	841								
		BS BS	0305 0326	0683 0764	34920 35150	274						148	833 971								
	0	85	0360	0632	34968	275	1					148	822								
		BS STD	0387 0400	0693 0633	35151 3504	275		0005	948	03	93	148	853 830								
	0	85	0400	0633	35039	275	6	0005		0-	,,	148									
		85 85	0425 0480	0641 0455	35118 34861	276						148									
		BS	0489	0475	34920	276							779								
		STD BS	0500 0500	0455	3490	276		0004	880	04	47	147									
		BS	0523	0455 0491	34900 34955	276						147									
		BS	0540	0456	34910	2768	8	0001		٠,	0.5	147	780								
		STD BS	0600 0600	0453 0453	3494 34939	2770		0004	0/4	04	95	147									
	0	BS	0640	0450	34950	277	1					147	794								
		STD BS	0700 0700	0495 0495	3506 35055	2779		0004	439	05	41	148	324 324								
		STD	0800	0450	3503	2778	8	0004	192	05	84	148	322								
		BS STD	0800 0900	0450 0436	35028 3503	2778		0004	1 / 4	06	27	148	322								
	0	85	0900	0436	35025	2779		0004	140	UO	40	148									
		STD BS	1000	0415	3501	2780	)	0004	97	06	67	148	341								
		STO	1000 1100	0415 0400	35010 3499	2780 2780		0004	154	07	08	148									
	0	BS	1100	0400	34990	2780	)					148	351								
		STD BS	1200 1200	0392 0392	3499 34990	2781		0004	146	07	50	148 148									
		STO	1300	0384	3498	2781	l	0004	187	07	91	148	377								
		BS STD	1300 1400	0384 0373	34983 3498	2782		0004	1 /4 1	08	33	148									
		8\$	1400	0373	34982	2782		0004	41	υð	23	148									
		STO	1500	0373	3498	2782	2	0004	226	08	75	149	906								
	U	BS	1500	0373	34982	2782	2					149	706								

ERENCE	SHIP	LATITU	ne l	LON	GITUDE \$	MA SO	RSOEN UARE	STATE	N TIN	A E	YEAR		ORIGINA		Щ	DEPTH	MAX. GEPTH	OR	WAV SERVAT	IONS	WEA-	CLOU			NO	DC DC
ID. NO.	CODE	£XIIIO	1/10		GITUDE E	Ž 10°	11.	MO D		- 1	1508	CRUISE NO.		TATION UMBER		80110W	S'MPL'S	D(R.	HGT ?						STA1 NUA	ABER
18016	EV	4428	N	04	747 W	14		05 2			1967		99			3585	15	20	1 4		×ο	0	3		00	) 45
							CDLOR	·		N D SPEEG	BAR	v• ⊢	AIR TEA	AP. °C	VIS.	ND, OBS.	SPEC	IAL								
							COOL	TRANS.	OIR	SPEEG OR FORCE	(mb)		ULB	EUL8	CODI	DEPTHS	OBSERV	A HONS								
							DT	SD	20	509	3 3	5 1	28	111	7	34	L.,						,			
	MESSENGI TIME HR 1/10	CAST	CAR TYP	0	DEPTH (m)		t °c	5	/ <b>.</b> .	SIG	1~A	SPECIFIC	ALT-RIG	ME 8	A D	SOI	OCITY	O2 ml/	, PO		TOTA L-P	NO2-1				ρH
	HR 1/10	I NO.	117	-		_		-				Anon	ALI - A.I		103	VELC	OCIII		×9 -	g#/I	µg • a1/1	µg - at/	l μg - αt/	- ولا ا	at/I	
	1		١ .					1	,	3.				,		1,	25.3		1					1		
	03	2	OB:	TD S	0000		1152 1152	346 346		26 26		001	638	6 0	000		953									
	0.5	_		T D	0010		1198	348			49	001	556	3 0	016		974									
			OB:		0010		1198	348		26					^		974									
	00	3	0 B :	TD S	0020		1267 1267	351 351		26	58 58	001	469	0 0	031		003									
		-		TO	0030		1250	353			79	001	275	9 0	045		001									
			OB:		0334		0687	347		27							838									
			08:	S TD	0346 0400		0773 0634	350 349		27 27		000	669	6 0	434		877 829									
			0В:		0400		0634	349		27				•			829									
			OB:		0454		0515	348		27							789									
			OB:	5 TD	0465 0500		0440 0476	347 349		27 27		000	505	3 0	493		759 781									
			08		0500		0476	349		27		000			.,,		781									
			08:		0540		0568	350		27							827									
			0B:	T D	0600 0600		0542 0542	350 350		27	68 68	000	1503	9 0	543		827									
				T D	0700		0445	349		27		000	46B	5 0	92		802									
			OB:		0030		1250	353		26							001									
			OB:	TD c	0050		1233	353 353		26	83	001	239	2 0	070		999									
				T D	0075		1243	354			83	001	243	9 0	101		007									
			OB:		0075		1243	354		26							007									
			S 0B:	T D	0100		1258 1258	354 354		26	84	001	245	8 0	132		017									
				T D	0125		1277	355			85	001	241	в о	163		028									
			0B:		0125		1277	355		26						15	028									
			0B:		0135 0150		1280	355 354		26		001	238	7 0	194		031									
			0B:	TD S	0150		1260 1260	354		26	86 86	001	230	, 0	194		026									
			OB:	S	0160		1197	353	18	26	86					15	004									
			OB:		0195		1195	353			91	001	201	3 0	2 6 6		010									
			0B.	T 0	0200		1150 1150	352 352		26	91 91	001	201	5 0	255		994									
				TD	0250		0810	348			13	000	987	8 0	10 و		872									
			OB.		0250		0810	348		27							872									
			0B:	S TD	0260		0891 0817	350 349		27	26	000	879	5 0	357		907									
			OB:		0300		0817	349		27				, ,	- ,		885									
			OB:		0310		0850	351		27							901									
			0 B:	5 T D	0700 0800		0445	349 349		27		000	457	4 n	638		802									
			0 B		0800		0448	349	73		73	500		. 0	0		820									
			5	τO	0900		0440	349	9	27	76	000	445	4 0	683	3 14	834									
			OB:	S TO	090 <b>0</b> 1000		0440	349 349		27	76 77	000	436	а ^	727		834									
			08		1000		0425	349		27		000	, - 20	J 0			844									
			5	TD	1100		0415	349		27	78	000	434	1 0	771	14	857									
			0 B	5 10	1100 1200		0415	349			78 80	000	428	5 1	814		857									
			08		1200		0403	349		27		500	0	- 0			869									
			S	ΤD	1300		0388	349	7	27	80	000	433	3 0	857	1 14	879									
			OB	S TD	1300 1400		0388 0384	349	_		80 80	000	437	0 0	901		879 894									
			0B.		1400		0384	349			80	000	1431	0 0	,01		894									
			S	TD	1500		0380	349	7	27	80	000	440	5 0	945	14	909									
			OB	S	1500		0380	349	70	27	80					14	909									

TRY	ID.	C is		LATITU	DE	LONG	GITUDE	DRIFT	MARSDEN SQUARE	STATION T	ME	re a r	ORIG CRUISE	INATO		_	DEPTH TO	MAX, DEPTH OF	08	WAVE SERVATION	NS.	WEA-	CLOUE			NODO
DE	NO.	100		•	1/10		17/10	O Z	10" 1"	MO DAY	R.1/10		NO.	NUA		8	BOTTOM	S'MPL'S	ł	HGT PER		CODE	TYPE A M			NUMB
3 1 8	801	6 E	v l	4423	5 N	047	27 W	1	149 47	05 21	051   1	967	9	962			3895	15	23	1 2		XO	0/3			004
									WA	TER V	IND	BARO	0.10	EMP.	8	vis,	NO.	SPEC		-   -		1 20	, 0.5	'	'	00.
									COLOR	TRANS. DIR.	SPEED OR	METER (mbs)		W.	ET C		OBS. DEPTHS	OBSERV	A TION S							
									-	<del></del>	FORCE	<del> </del>		_	-+	$\dashv$		_								
									DT	SD 22	512	315	128	1		7	27			L,	-	-				
		MES	ME OF	CAST NO.	CAR		DEPTH	lm)	1 10	s ./	SIG M	4 -T	SPECIFIC VO	LUME	₹ △ DYN.	. M.	sou	IND	0 2 ml/	PO4-1		OTAL-P	NO2-N	NO3-N	5104	-Sı
		HP	1/10							-	<u> </u>		ANOMALI	-210	x 1	103	VELO	CITY		µg - 01)	4	yg - a1/1	µg - a1/	yg - a1/1	pg - c	uZi P
			-									- 1												_		
						TD	000		1439	3554	265	4	00150	29	00	00	150	061						•	,	
			051		08:		000		1439	35542	265						15	061								
						TD	001		1437	3554	265		00150	18	00	15		062								
					08:	5 T D	001		1437 1382	35542 3550	265							062								
			003		08:		002		1382	35497	266 266		00142	66	00	30		045								
			J J J			5 TD	002		1339	3555	267		00130	0.4	00.	42		045 033								
					08:		003		1339	35545	267		30130	, ,	50.	73		033								
					S	TΟ	005		1299	3551	268		00126	65	00	69		023								
					08		005		1299	35505	268							023								
						TD	007		1213	3533	268		00123	65	010	00	140									
					08	-	007		1213	35334	268							996								
					S.		010		1245	3544	268		00122	34	013	31	15(									
					0B3		010		1245 1219	35442 3537	268							012								
					085		012		1219	35370	268 268		00123	41	016	62	15(									
					S1		015		1179	3530	268		00121	00	019	0.2	15( 149									
					089		015		1179	35299	268		00121	00	01	90		996								
					SI		020		1121	3523	269		00118	0.8	029	53	149									
					089		020	0	1121	35225	269	3			•	-		983								
					085		021		1138	35354	270	0					149									
					S1		025		1033	3521	270		00104	72	030	08	149	960								
					089		025		1033	35214	270							960								
					S1 089		030		0908 0908	3513 35130	272		00091	34	039	57	149									
					51		040		0692	3498	272 274		00072	2.1	043	3.0	149									
					083		040		0692	34976	274		00072	2 1	0 7 2	37	148	353								
					S1		0500		0588	3500	275		00058	0.7	050	04	148									
					089		0500	)	0588	34997	275						148									
					089		0586		0542	35020	276	6					148									
					SI		0600		0490	3494	276	6	00051	13	055	59	148	304								
					089		0600		0490	34940	276						148									
					085		0630		0477	34942	276						148									
					S 1		0700		0462 0462	3497 34967	277 277		00046	83	000	8 (	148									
					ST		0800		0442	3497	277		00045	3.0	065	5.4	148									
					089		0800		0442	34969	277		00043	50	005	,4	148									
					ST		0900		0413	3494	277		00044	63	069	99	148									
					089		0900		0413	34944	277				- /		148									
					ST		1000		0411	3496	277	7	00043	95	074	+3	148									
					089		1000		0411	34963	277						148	338								
					ST		1100		0402	3496	277		00043	71	078	37	148									
					089		1100		0402	34964	277						148									
					\$1 085		1200		0384	3495	277		00043	26	083	30	148									
					51		1200		0384 0385	34952 3496	277		00063	5 /.	00-	7.	148									
					085		1300		0385	34962	277		00043	J 4	087	<i>r</i> 4	148									
					ST		1400		0379	3496	278		00043	64	091	17	148 148									
					085		1400		0379	34962	278			-	0 / 1		148									
					ST		1500		0374	3496	278		00043	85	096	<b>5</b> 1	149									
					089		1500	)	0374	34962	278					-	149									

				_	,										I MA	-			l gravi-			
CTRY ID.	SHIP	LATITU	DE	LONGITI	DE T	MARSDEN SQUARE	STATION TO	ME	YEAR	CRUISE	\$1	TATION	-	OEPTH TO	DEPT	H OBS	WAVE ERVATIONS	WEA-	CODES		5	NODC TATION
CODE NO.	CODE		1/10	•	1/10		MO DAY H	2,1/10		NO.	N	UMBEP	-	BOTTOM	S'MPL	'S DIR	HGT PER SE	CODE	1177	T .		UMBER
318016	EV	4419	5N	0470	6 W	149 47		68	1967	Щ	996			4078	1 5	27	1 2	X 4	013	ļ	1	0047
						COLOR		SPEEC	BARC	· —	IR TEA	WET	VIS	NO. 085.	OBSER	ECIAL VATIONS						
						CODE	TRANS. DIR.	FORC	E (mbs	) 81,	LB.	BULB		OBS, DEPTHS								
						0.1	SD 23	\$12	2 30	8 1	19	106	6	38								_
	MESSENGS TIME	CAST	CAI	0	EPTH (m)	т *c	s ·/	SIG	T-AM	SPECIFIC	VOLUA	ME EN	∆ D. N. M. 10 <sup>3</sup>	SOL	OCITY	0 2 ml/l	PO4-P	10TAL-P µg - 01/1	NO2-N	NO3-N	\$1.D4=\$1 yg = a1/1	ρΗ
	HR 1/10	T NO.	TYI	'E				-				x	103	- 1	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1/10 · gq	yg • 01/1	ug - of/1	µg = a1/1	pg - u	
			l				1	١				-							Į.	l	1	
	06	0	S OB		0000	1034 1034	3363 33630		585 585	002	162	5 0	000		899 899							
	00	o	08		0006	1041	33663		586						903							
					0010	0995	3347		579	002	219	9 0	022		884							
	00	3	0B 0B		0010	0995 1387	33470 35448		579 558						884 045							
					0020	1290	3521		559	001	457	5 0	040		011							
			ОВ	S	0020	1290	35210		559						011							
					0030	1309 1309	3554 35542		581 581	001	253	2 0	054		023							
			08 08		0045	1309	35540		581						026							
			S	TD	0050	1262	3542	26	581	001	258	3 0	079	15	009							
			0 B		0050	1262 1280	35420 35479		581 582						009 018							
			0 B S	S T0	0060 0075	1280	3539		585 585	001	232	5 0	110		003							
			08		0075	1233	35390	26	585						003							
			08		0081	1162	35218	_	685						978 988							
			08	10	0095	1183 1170	35301 3526		587 587	001	218	5 0	141		984							
			08		0100	1170	35260		687					14	984							
				TO	0125	1046	3509		696	001	132	2 0	170		944							
			0B 0B		0125	1046 1060	35090 35179		696 701						942 951							
				TD	0150	0990	3504		702	001	081	8 0	198		925							
			08		0150	0990	35039		702						925							
			08	TD.	0176	0925 0993	34990 3522		709 715	000	965	8 0	249		937							
			08		0200	0993	35218		715	000					937							
				TD	0250	0841	3506		727	000	854	7 0	495		887							
			08		0250 0265	0841 0834	35055 35090		727 <b>731</b>						887 887							
				TD.	0300	0607	3480		741	000	723	8 0	334		800							
			08	s	0300	0607	34800		741						800							
			OE		0302	0638 0608	34880 34898		743 748						814							
			0 E		0350	0653	35002		751						830							
			9	STD	0400	0562	3492	2	755	000	594	7 0	400	14	800							
			0.5		0400 0500	0562 0520	34915 3497		755 765	000	514	a o	455		800							
			OE	STD BS	0500	0520	34969		765	000	714		.,,		800							
			0.6	35	0548	0617	35190	2	770		, 6		E ~ -	14	850							
			08	STD Re	0600 0600	0550 0550	3508 35080		770 770	000	483	1 0	505		831 831							
			0.6		0640	0469	34987		772					14	803							
			9	STD	0700	0449	3498	2	774	000	444	4 0	552		804							
			0.6	3S 5TD	0700 0800	0449 0487	34978 3506		774 776	000	442	4 ^	596		804 838							
			O E		0800	0487	35059		776	500	772	0	- 70		838							
			9	STD	0900	0452	3504	2	778	000	424	9 0	639	_	840							
				BS BTD	0900 1000	0452 0440	35038 3503		778 778	000	429	8 0	1682		840 851							
				35	1000	0440			778	500	767			14	851							
			9	STD	1100	0420	3502	2	780	000	416	8 0	724		859							
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				35	1500	0370								14	905							

SHIP	LAT	ITUOE	LOI	NGITUDE NOUTH	MAR! SOU	ARE	STATION T	Υ	EAR	CRUISE		TION	$\neg$	OEPTH TO OTTOM	MAX. CEPTH OF	OBS	WAVE ERVATION		WEA- THER COOE	CLOUD			NOOC STATION NUMBER
		1/10			10*		MO DAY H			NO.		MBER	+		S'MPL		H GT PER	EA	LUUE	TYPE AM	-		NUMBE
E٧	44	12 N	04	625 WI	149	461 WA	05 21 V	098   1 vino	967	A 10	996	<u>4</u> . ℃ T		930	15	03	2   3	1	ΧO	013	1	l	004
						COLOR	TRANS. OIR.	SPEED OR FORCE	M ETI (mbs	R DR	Y		V13.	NO. OBS. SEPTHS	SPE OBSERV	CIAL /ATIONS							
	_			,	_	Dī	SD 00	500	31	5 17	2		_	33			_					1	
MESSENC TIME HR 1/1	A CA	T CA	RO PÉ	DEPTH (m)	т	°C	s ·/.	SIGMA	<b>-</b> T	SPECIFIC Y	VOLUME	₹ ∆ OYN	. М. о <sup>3</sup>	SOL VELO	JNO DCITY	0 2 ml/l	PO 4-P	101.	A L - P	NO3-N ug - ol/l	NO3-N	\$1 O4-	St ph
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		08		0010		548	35405	261		0016	338	00	20		096								
			TD	0020		492	3555	264		0016	133	00	37		081								
0.0	3	OB	5	0020		492	35549	264							081								
			TD	0030		371	3546	266		0014	347	00	52		043								
		08 08		0030 0040		371 257	35460 35230	266 266							043								
			TD	0050		319	3544	267		0013	514	00	80		004								
		08	S	0050		319	35442	267		0011		•	•		029								
		0.6		0055		242	35276	267							002								
			TD	0075		230	3528	267		0013	077	01	13		001								
		90		0075 0080		230 246	35280 35337	267 267							001								
		08		0093		206	35251	267							995								
			TD	0100		219	3528	267		0012	937	01	46		001								
		0.6		0100		219	35280	267							001								
		08		0102		265	35421	268		0013	7.5	- 1	•		019								
		08	TD	0125 0125		244 244	3538 35376	268 268		0012	165	01	18		015 015								
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		0.8	5 TD	0200 0250		296 193	35570 3546	268 269		0011	480	03	2 2		047 019								
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			TD	0300		132	3543	270		0010	781	03	89		006								
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			TD	0400		848	3508	272		0008	754	04	87		914								
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		ОВ		0530		618	34975	275							845								
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		0B 08		0629 0681		522 607	34949 35148	276							822 868								
			T D	0700		587	3511	276		0005	231	06	82		862								
		08	S	0700	0	587	35110	276	8					14	862								
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		S	TD	1000	0	452	3501	277	6	0004	597	08	29	14	856								
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			T D	1100		421	3496	2770		0004	615	08	75		859								
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		08	S	1300	0	394	34959	277	8			-			881								
			TD	1400		388	3496	277		0004	502	10	11	14	896								
		08		1400 1500		388	34959	277		0001	4.05	10			896								
		08	TD	1500		380 380	3496 34959	2780		0004	485	10	26	14	909								

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REFERENCE	SHIP			DAGITUDE 30	MARSDEN SDUARE	STATION TH	WE	YEAR	-		ATOR'S	_	DEPTH	MAX, DEPTH	085	WAV!	ions	WEA	CLOUE	:	- 1	STATION	
CODE NO.	CODE	LATITUE	1/10	1/10 E		MO DAY HE	- 1		CRUISE NO.		TATION		BOTTOM	OF S'MPL'S	DIR.	HGT P	R SEA	1 0000	TYPE AA			NUMBER	
318016	EV	4404		4544 W			l l	967		99	65		4151	15	02	3 2	2	x1	1013		- 1	0049	
1 310014	LVI	4404	14 1 0	ו וח דדעד	WAI		INO	BARC	)_ A	IR TEA	αP. ℃	VIS.	NO.	SPEC									
					COLOR	TRAHS. DIR.	SPEED OR FORCE	METE		JEB	WET	CDDE	OBS. DEPTHS	OBSERV									
					DT	SD 18	518	30	8 1	83	150	7	34										
Г					_   01	30 10	1	1-7	SPECIFIC			_	_	UND		T	4-P	TDTAL-P	NO2-N	NO3-N	SI 04-	Sı	s
	MESSENGR TIME a	CAST NO.	CARD	DEPTH (m)	τ *c	s ·/	SIGM	A-Y	ANDM.		) D	∆ D (N, M ( 10 <sup>3</sup>	· VEL	OCITY	O 2 m1/l		01/t	νg = α1/1					c
	HR 1/10			-	+						$\neg$	_				1							$\sqcap$
		1 [	STD	0000	1539	3549	262	28	001	750	3 0	000	15	092		'	'			•			
	130	)	085	0000	1539	35489	262							092									
1			STD		1538	3549	262		001	751	2 0	018		094									
	003		08S 08S	0010 0015	1538 1550	35489 35569	261 261							094									
	003	,	510		1609	3590	264		001	608	1 0	034		122									
			OBS	0020	1609	35900	264							122									
			STD		1608	3595	26		001	572	7 0	050		124									
			085	0030	1608 1610	35950 3608	26 26		001	488	9 n	081		130									
			STD OBS	0050	1610	36080	26		551		. •	. • •	15	130									
			OBS	0055	1615	36108	26					. 1		132									
			STO	0075	1563 1563	3610 36099	26		001	380	0 6	117		5119 5119									
			OBS STC		1537	3607	26		001	353	2 0	151		115									
			OBS	0100	1537	36070	26	73					1 5	115									
			OBS	0105	1538	36060	26							116									
			OBS	0115	1470 1450	35900 3584	26 26		001	343	14 0	185		094 089									
			STC OBS	0125	1450	35842	26		001					089									
			ST		1441	3583	26	76	001	341	0 0	218		090									
			OBS	0150	1441	35830			1					5090 5060									
			STO	0200	1333 1333	3559 35590	26 26		001	1312	20 C	284		5060									
			08S ST0		1275	3553	26		001	1259	97 (	349		5048									
			085	0250	1275	35525	26	87						5048									
			OBS	0270	1340	35735	26					. (		5075									
			5 T C 0 B S	0300	1300 1300	3571 35710	26 26		00	1186	38 (	)41		5067 5067									
			085	0377	0990	35133	27							4964									
			OBS	0382	1030	35289	27							4981									
			ST		1019 1019	3530 35300		17	000	)993	35 (	) 5 1		4980 4980									
			085 085	0400 0410	1019	35320	27							4986									
			OBS	0472	0792	34990		-					1	4904									
			OBS	0482	0823	35077		32						4918									
			ST		0759			35 35	000	081	12 (	060		4896 4896									
			0BS S <b>T</b> 1	0500 0600	0759 0639			55 54	000	064	72 (	068		4865									
			085	0600	0639	35019	27	54					1	4865									
			ST		0570			63	000	056	68 (	74		4854 4854									
			OBS ST	0700 0800	0570 0505			70	000	049	79 (	379		4854 4844									
			OBS		0505			70	301		. , '	- /		4844									
			ST		0475			73	00	047	46	084		4849									
			08\$	0900	0475			73	0.0	045	16	089		4849 4856									
			ST OBS		0452 0452			76 76	00	043	10	009		4856									
			ST		0432			78	00	044	44	093	6 1	4868									
			OBS	1100	0440	35019	27	78					1	4868									
			ST		0421			179 179	00	043	59	098		4876 4876									
			OBS ST		0421 0400			780	00	043	39	102		4884									
			085		0400	34990	27	780						4884									
			ST		0380			780	00	043	70	106		4892 4892									
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10   10   10   10   10   10   10   10	ENCE	SHIP	LATITUD	, ,	NGITUDE #20	MARSDEN SQUARE	STATION TI	ME YEAR		INATOR'S		UEPIH Dr	AX.	Carr	WAVE RVATIONS	WEA				100C	]
1	NO.								CRUISE NO.	STATIO	R I	OTTOM C	3 F				c		\$1	NOITA	
	8016	EV			1				, 9					Ť						0050	
	0019			,, ,				OND	A ID T	EMP. °C					2121	1 10	11 013	ŧ	}	0050	ì
							TRANS. DIR.	SPEED MET	ER DRY		CODE	OBS. OBS	ERVA	TIONS							
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STO   1000	Γ.					101	50 16	516 31				40	_				_			г —	$\overline{}$
STO		IIME Q	CAST NO.		DEPTH (m)	T °C	s */	SIGMA-1	SPECIFIC VOI	X10 <sup>7</sup>	δίν. W.		,   c	2 ml/1				NO3-N	SI O4-\$1	ρН	0
162    OBS	H	HR 1/10						_		$\rightarrow$	X 10*	-	+		-		-	py - diyi	pg - 0,		4
162    OBS	I			CTD	0000	1 4 7 2	2564	3-64	00169	0.3	0000	1507	a				1		1		
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STD   0020   1409   3599   2665   0014061   0029   15034		000							00140	91	0015										
OBS		003							00140	61	0029										
085 0030 1397 3599 2667 0013e27 0070 15049 085 0059 1315 3558 2670 0013e27 0070 15049 085 0059 1315 35505 2674 15034 085 0059 1315 35505 2674 15034 085 0059 1315 35505 2674 15034 085 0058 0058 1350 35490 2669 15041 0052 0064 1319 35480 2674 15032 085 0064 1319 35480 2674 15032 085 0064 1319 35480 2674 15032 085 00675 1350 35600 2677 0013034 0103 15047 085 0075 1350 35600 2677 0013034 0103 15047 0105 085 0075 1350 35600 2677 0013034 0103 15047 0105 085 0075 1350 35600 2677 0013034 0103 15047 0105 085 0100 1307 3551 2679 0012906 0136 15034 0103 15040 085 0100 1307 3551 2679 0012906 0136 15034 0103 15040 085 0100 1297 35500 2660 15032 0100 1307 3551 2679 012906 0136 15034 0109 1280 35470 2682 015032 0109 1280 35470 2682 0150 15032 0105 1278 35500 2680 15032 0109 1278 35500 2680 01259 3168 15029 0105 0105 1278 35500 2684 01259 2199 15032 0105 0105 1278 35500 2684 01259 2199 15032 0105 0105 1278 35500 2684 01259 2199 15017 0105 015 1278 35500 2684 01259 2199 15017 0105 015 1278 35405 2695 011707 0260 15017 0260 0150 15017 0260 0150 15017 0260 0150 15017 0260 0150 15017 0260 0150 15017 0260 0150 15017 0260 0150 15017 0260 0150 15017 0260 0150 0150 0150 0150 0150 0150 0150 01											002,										
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REFERENCE	SHIP	LATITU	DE	LONGITUDE	DRIFT	28AM UOZ		\$TA	TION T	IME	YEAR	CI	ORIGIN RUISE S	_	R'S ION	-	DEPTH TO	DEPTI			VAVE VATIO		WEATHER	C	OUD		5	NODC
ODE NO.	10001	•	3/10	1/1	) = z	10*	1.	MO	DAY	R.1/10		$\perp$	NO. 1	1Ü V	ABER	_	BOTTON	S'MPL	'S DIR	. Н	GT PER	5 E A	CODE	TYPE	A.M.	T	^	UMBER
318016	Ev	4425	5N	04908	il .	149	49	05	22	220	196	7	99	67			0064	1 00	2	4	3 2		1 x2	0	13			005
							WA	TER	Ţ.,	MIND	BAI	20-	AIR TE	MΡ	℃	VIS.	NO.	.,	ECIAL	7								
							COLOR	TRAN!	DIR	OR FDRC	, M. C.		DRY BULB		JET C	CODE	OBS. DEPTHS	ORER	VATION	S								
							DT	sc	20	510	10	56	089	0	78	7	06											
	MESSENGR TIME HR 1/10	CAST NO.	CAR TYP		lm I	т	°c	,	•4,	5tG	MA-T		PECIFIC VOLU			1. M.		UND	02 m	IJξ	PO <sub>4</sub>		101AL-P			NO3=N μ9 • α1/1	\$1 O4~\$1 µg = a1/1	
			s.	TD 000	0	0	559	32	72	25	82	. (	002182	2	00	00	14	704										
	220	)	08	s 000	0	0	559	32	720	25	82						14	704										
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				TD 001		0	280	32	80	26	17	-	001853	9	00	20	14	589										
	001	i	08:				280		800		17							589										
				TD 002			059		94		44		001600	6	00	137		495										
			08:				059		940		44		0015/0	_				495										
			_	TD 003			030		97		48		001562	В	00	53		483										
			08:				030		970		48		001600	_	•			483										
				TD 009			010		302		54		001503	U	00	84		469										
			08	s 009	U	-0	010	3 3	023	26	54						14	469										

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TRY ID.	CODE	LATITU	DE		TUDE		SQUAR			SMTI		YE A	AR .	CRUISE	51	ATION	$\neg$	10	000				TONS	THER	COD			5	TATION
ODE NO.	1000	•	1/10	•	1/10	Z 1	0.	1*	MO D	AY H	R,1/10		_	NO,	N	UMBER	_	BOTTO	w s.w	PL'S	DIR.	HGT	PER SEA	CODE	TYPE A	MT		~	UMBER
318016	s Ev I	4422	5N	048	525W	1	49	48	05 2	22 2	36	19	67		996	8		080	5   C	7	24	2	2	X 2	0	3		1	0052
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			51	TD .	0000	)	03	59	328	36	26	15		0018	76	0	000	1	4624	2									
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			089	S	000	2	03	59	328	332		13							4622	2									
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			08		0300			70		355		142							4654										
			085	S	031			03		571	27	146							4719										
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CTRY ID. CODE LATIN		NGITUDE E	MARSOEN	STATION TI	Y	EAR	CRUISE NO.	STA1	ION		DEPTH TO BOTTOM	DEPTH OF		WAVE ERVATIONS	WEA- THER CODE	COOES		5	NODC STATION NUMBER	
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			COLOR	TRANS. DIR.	SPEED OR FORCE	METER (mbs)			JLB	CODE	OBS. DEPTHS	OBZERV								
			DT	SD 24	511	288	3 06	7 0	56	7	32									
MESSENGR CAST	CARD	DEPTH (m)	т "с	s */	SIGMA	1-T	SPECIFIC	VOLUME	2 √ k	△ 0 N. M. 10 <sup>3</sup>	SOL		O <sub>2</sub> ml/l	PO4-P	10TA L-P	NO <sub>2</sub> -N µg - 01/1	NO3-N	\$1 O4=\$		S
HR 1/10	-	-	<del> </del>		ļ	-			X	103	-			py - 01/1	by - 01/1	pg - 01/1	yg • 01/1	pg = 017	$\vdash$	+
1 1	STD	0000	0213	3286	262	7	0017	611	00	000	14	559		1 1	J	ı			1	11
008	OBS STD	0000	0213 0140	32855 3300	262 264		0016	0.67	0.0	17		559 530								
	OBS	0010	0140	32995	264		0016	0001	00	) 1 /		530								
	STD	0020	0140	3299	264		0016	096	00	33		532								
003	OBS STD	0020 0030	0140 -0010	32990 3312	264 266		0014	334	0.0	48		532 467								
	085	0030	-0010	33115	266	1						467								
	OBS STD	0031 0050	00 29 00 7 3	33170 3325	266 266		0013	3703	0.0	76		486 510								
	OBS	0050	0073	33252	266		0012	,,,,	00	, , 6		510								
	STD	0075 0075	0005 0005	3346	268		0011	1766	01	108		486								
	08S S <b>T</b> D	0100	0062	33459 3364	268 270		0010	702	01	136		486 519								
	OBS	0100	0062	33638	270							519								
	08s 08s	0110 0118	0121 0073	33715 33680	270 270							548 527								
	STO	0125	0095	3379	271	0	0009	745	01	162	14	540								
	085 085	0125 0145	0095 0201	33790 33980	271							540 593								
	STD	0150	0163	3394	271		0009	071	01	185		576								
	OBS	0150	0163	33940	271							576								
	085 STD	0165 0200	0140 0250	34010 3427	272 273		0007	7267	0.2	226		570 627								
	085	0200	0250	34272	273	7			-		14	627								
	OBS STD	0240 0250	0396 0360	34570 3452	274 274		0006	460	0.2	60		701 686								
	oBs	0250	0360	34519	274		0000	700	0.2	- 00		686								
	OBS	0280 0300	0420	34685	275		0005		• 7			719								
	STD OBS	0300	0410 0410	3473 34725	275 275		0005	9478	02	90		718 718								
	085	0358	0400	34745	276	1					14	724								
	ST0 085	0400 0400	0431 0431	3485 34845	276 276		0004	911	03	342		745 745								
	STD	0500	0448	3493	277		0004	613	03	90		770								
	0BS ST0	0500 0600	0448 0439	34925 3494	277 277		0004	5 2 0	0.4	+35		770 783								
	OBS	0600	0439	34935	277		0004	,,,,,	0-1	• 22		783								
	STO	0700	0424	3494	277		0004	465	04	81		793								
	OBS STD	0700 0800	0424 0409	34935 3494	277 277		0004	386	05	25		793 804								
	085	0800	0409	34935	277	5					14	804								
	STD	0900 0900	0417	3496 34958	277		0004	408	05	69		824								
	OBS STD	1000	0417 0402	34958	277 277		0004	381	06	13		824 834								
	085	1000	0402	34950	277	7					14	834								
	STD OBS	1100 1100	0395 0395	3495 34950	277 2 <b>7</b> 7		0004	+387	0.6	557		848 848								
	STO	1200	0395	3495	277	7	0004	478	07	701	14	865								
	OBS STD	1200 1300	0395 0393	34950 3495	277 277		0004	521	0.7	746		865 881								
	085	1300	0393	34953	277		0004		0,	0		881								
	STD	1400	0382	3495	277		0004	469	07	791		893								
	OBS STD	1400 1500	0382 0377	34953 3495	277 277		0004	490	08	336		893 908								
	085	1500	0377	34953	277	9					14	908								

NČE ID.	SHIP	LATITU	DE	LONGITUD	DRIFT	MARS	DEN ARE	STATI	ON TIA		YEAR	CRUISE	DRIGINA	ATIC	NC.	DEF	O	H 085	WAV ERVA	E TIONS	WEA-	CLO	DES			10N ITAT2 MUN	ON	
NO.	CODE	•	1/10		/10 2	10*	1.	MO D	AY HR	.1/10		NO.	NI	UMB	ER	BO T1	S.W.P.L		HGTP	ER SE		1771			_	_	-	
016	EV	4417	5N	04826	w	149	48			27 :	1967	<u> </u>	997	70 (P. %		31 N	_		111	4	1 X 2	0	3			00	54	
						ł	COLOR	TRANS.	DIR.	SPEED	METE	R	DRY ULB	W E		DEP		ECIAL VATIONS										
						}	CODE	S D	26	SO6	2.8	<del>-   -</del>	61		56 7	-	2											
	MESSENGR	CAST	CARD					1			•	SPECIFIC	VOLUA	A E	₹ △ D		SOUND	0	PO	4-8	101AL-P	NO <sub>2</sub> -	-N	NO3-N	St O4-	Sı	ρН	S
	HR 1/10	NO.	TYPE	DEP	TH (m)	T	,c	5	•/	SIGN	A-T	ANOM	ALY-XIO	,	X 10 <sup>3</sup>	٠.	VELOCITY	0 2 ml/5	h8	- 01/1	µg - 01/1	ng - 6	01/1	yg - at/1	μg = q1	/1	pn	č
																		ļ				1	ļ					
			ST OBS		000		348 348	329	96 955	26. 26.		001	.7939	5	0000	)	14619											
	0.2	,	ST		010		401	33.	21	26	38	001	654	5	001	7	14646											
			OBS		010 020		401 387	33. 33.	205	26 26		001	442	3	003	3	14646											
	00	3	ST OBS		020		387		470	26		001	. 772.	_	000.		14646											
			obs		025		395		460	26 26		001	3324	4	004	7	14650											
			ST OBS		030 030		250	33. 33.	459	26							14588											
			ST OBS		050 050		315	33	75 748	26 26		001	169.	2	007	2	14624											
			085	. 0	062	0	390	33	842	26	90			_	- 1		14659											
			ST OBS		075 075		344	33	84 840	26 26		001	127	5	0100	)	14642											
			085	0	090	0	283	34	060	27	17						14621											
			ST		100	-	293	34	14 143	27 27		000	0855.	2	012	5	14628 14628											
			08S 51		125		1340	34		27		000	727	8	014	5	14655											
			OBS	0	125		340		371	27 27		0.00	704	0	016	2	14655											
			51 085		150 150		412	34 34	500	27	-	000	7704	U	010		14692											
			OBS	0	168	_	349		503 609	27 27							14668											
			OBS		200		)416 )355	34		27		000	0591	1	019	5	14677											
			OBS	, 0	200		355		580	27		0.07	556	,	022	,	14677											
			S T O B S	5 0	250		508 508	34 34	850	27 2 <b>7</b>		000	)558	0	022	•	14753											
			085		283		528 480	34 34	921	27 27		000	0528	3	025	1	14767 14749											
			S T 0 B S		300		480		855	27		000	3223		023	•	14749											
			OBS		310		457		850 000	27 27							14741											
			0B5		360 1400		)539 )526	35		27		000	0488	3	030	2	14787											
			085		400		526		998	27		00	0451	/.	034	۵	14787											
			S1 085		500		)504 )504	35 35	028	27 27		001	J 4 J 1	4			14795											
			S.T	0 Q1	600		455	34		27		000	0431	2	039	3	14790 14790											
			0BS		1600 1700		)455 )424		991 97	27 27	74 75	000	0424	2	043	6	14794											
			OBS	5 0	700	C	424	34	965	27	75						14794											
			S1 089		008 008		)412 )412		97 9 <b>6</b> 5	27	77 <b>7</b> 7	001	0419	7	047	o	14805 14805											
			S1	r <b>D</b> 0	900	C	387	34			77	00	0419	0	052	0	14811											
			085 S1	_	900		)387 )396	-	939 96		77 78	00	0424	9	056	2	14811											
			OBS	5 1	000	0	396	34	958	27	78						14832											
			S1 0B5		100		)393 )393		96 958		78 78	00	0430	4	060	5	14847											
			S1	TD 1	200	(	380	34	96	27	80	00	0423	2	064	8	14859	)										
			085 S1		1200 1300		0380 0377		958 96		80	۵٥	0428	2	069	0	14859											
			089	s 1	1300	(	<b>37</b> 7	34	958	27	08						14874	•										
			S1		400		0375 0375		96 958		'80 '80	00	0434	3	073	3	14890											
			0B:		L400 L500		0375 03 <b>7</b> 0		96		81	00	0436	3	077	7	14905											
			ов:		1500	(	0370	34	958	27	81						14905	ò										

REFER	ID.	SHIP	LATITUI	DE	LONGITUDE	DRIFT	MARS SOU	RE	IG	IN TIME		EAR	CRUISE	5	ATOR'S	_	T		MAX, DEPTH OF		WAVE ERVATIO		WEA- THER CODE	CLOUD		N STA	ODC TION MBER	
CODE	NO.		<u> </u>	1/10	1/1	-	10		MO DA				NO.		NU M BER	-			5'MPL'S		HGT PER	SEA	+	TYPE AM				
31	3016	EV	4414	5N   1	04807 V	۷)	149	48 WA		3   04 WINI		967		99 ALR TEA			34		15	25	1 2	1	X6	0 3	1	1 0	055	
							h	COLOR	TRANS.	DIR. SI	PE ED	METER	1	DRY	WET	CODS	0.0	85.	OBSERVA SPEC	IAL ATIONS								
							-	CODE	lm1	F	ORCE	(mbs)		ULB	BULB		-											
	_						_	DT	50	25 5	10	179		78	067			13			Т		_					73
		TIME C		CARD	DEPTH	(m)	Т	<b>'</b> C	s •	/ <b></b>	SIGMA	1-A	SPECIFIC		ME C	∆ D YN, M x 10 <sup>3</sup>	-   -	VETO	CITY	02 ml/l	PO4-	-P 1	01AL-P	NO2-N ug - at/l	NO3-N µg - ol/l	SI O4-Si pg - at/t	ρН	500
		IR 1/10		-			+		-			-				X 10-	+-		-			+						Hi
	I			ST	000	20	- Ω:	397	329	6	261	9	001	835	3 (	000		146	40		1	1				,		1
		042	2	085	000			397	329		261							146	40									
				ST				186	329		263		001	649	0 (	0017		145										
				OBS ST	00.			186 014	329 330		263 265		001	512	2 (	033		144										
		003	3	OBS	00.			014	330		265							144										
				ST OBS	00			070	331 331		266 266		001	373	3 (	048		144										
				OBS	00.			110	332		267							144	+24									
				ST 08S	00:			155	335 335		268 268		001	225	0 (	074		145										
				085	00			155 025	333		268							144										
				ST	00	75	0	080	335		269		001	113	0 (	103		144										
				OBS ST	00			030	335 336		269 270		001	039	4 (	130		144										
				085	01			364	336	80	270	3						145	20									-
				ST				260	340		271	-	000	928	7 (	154		146										
				OBS ST	01.			260 405	340 342		271 272		000	855	9 (	177		146										
				085	01	50		405	342		272							146										
				08s	01			331 350	342 342		272 272							146										
				085	01			487	345		273							147										
				ST				440	345		273 273		000	730	19 (	216		147										
				0BS	02			440 341	345 345		274	-						146										
				ST	D 02	50	0	526	348	1	275	2	000	609	6 (	250		147	759									
				0BS	02 02			526 425	348 347		275							147										
				ST				484	348		275		000	566	5 (	279		14										
				085	03			484	348		275							147										
				085 ST	03 D 04			392 501	347 349		276 276		000	499	7 (	333	3	147										
				085	04			501	349		276	5						147	776									
				OBS	04 D 05			536	350 350		276		000	468		381		147										
				ST OBS	05			500	349		276		000	, -00		, - O 1		147										
				ST	D 06	00	0	421	349	4	277	3	000	433	0 (	)426	•	147	776									
				OBS ST	06 D 07			421 410	349 349		277		000	430	1 (	0469	,	147										
				OBS	07	00	0	410	349	35	277	5						147	787									
				ST OBS	0 08 08			400	349 349		277		000	428	0 1	) <b>1</b> 2	2	148										
				ST	-			400	349		277		000	432	2 (	)555	5	148										
				OBS	09		0	400	349		277		000			15.00	,	148										
				ST OBS	D 10 10			395 395	349 349		277		000	435	) (	)599	,	148										-
				ST	0 11	00	0	383	349	4	277	8	000	429	9 1	0642	2	148	843									
				OBS	11 D 12			383 384	349 349		277		000	440		0685		148										
				ST 085	12			384 384	349		277		000	,44U	, ,	, 0 0 5	,	148										
				\$T	D 13	00	0	375	349	4	277	9	000	437	75 (	729	•	148	873									
				085 ST	13 D 14			375 372	349 349		277		000	442	2 1	773	3	148										
				OBS	14	00	0	372	349	42	277	9						148	889									
				5 T 0 B S	D 15 15			370 370	349 349		277		000	448	10 1	0818	3	149										
				003	10	-	•	,,,	247			,						;	, , ,									

REFERENCE							MARSDEN	STATE	NAL TIE	.,			SICIN	A TOR'S		DEP		MAX.		WAVE	1115	CLOUD			NODC
CTRY ID.	SHIP	LATITU	DE	LONGIT	3001	NOCT	SOUARE	21 4 111	MI	^1	YE AR	CRUISE	S	TATION		ŤC	5 0	OF	OBSE	RVATIONS	THER	CODES			STATION
CODE NO.	COLL	•	1/10	· · · ·	1/10	2	10" 1"	MO D	AY HE	,1/10		NO.		UMBER	_	BOTT	OW S	'MPL'S	DIR,	HGT PER SE	A CODE	TYPE A MIT		-	NUMBER
318016	EV	4412	N	0475	9 W	1	49 47				1967		99	72	$\Box$	374		15	23	1 2	Х 6	1 0 3			0056
							COLO	TER TRANS		SPEED	BARC	>- ⊢	LIR TE/	WET	VIS.	NO		SPEC! BSERVA							
							CODE	(m)	DIR.	FORCE	(mbs		ULB	BULB		DEPT	THS O		110117						
							DT	SD	24	S10	27	4 0	83	078	6	3(	0							,	
	MESSENGR TIME	CAST	CAR		DEPTH I	,	T *C	s .	V	SIGN	I	SPECIFIC	VOLU	ME E	△ D		soun		02 ml/L	PO4-P	TOTA L-P	NO2-N	NO3-N	SI O4~	
	HR 1/10	I NO.	TYPE	<u> </u>					<u> </u>	5.0		ANOM	ALY-XI	0'	103	,	/ELOC	ITY		µg - 01/1	νg - α1/1	µg = 01/1	µg - 61/1	וס - פע	(ZI
																									1
		_	51		0000		1105	346		26		001	565	4 0	000		149								
	05	7	085 S1		0000		1105 1355	346 353		26 26		001	470	7 0	015		149: 150:								
			089		0010		1355	353		26		•••					150								
			51		0020		1409	357		26		001	319	1 0	029		150								
	0.0	3	085		0020		1409 1364	357 356		26 26		001	302	2 0	042		150! 150!								
			S1 089		0030		1364	356		26		001	J U Z	2 0	042		150								
			51	_	0050	0	1330	356	0	26	81	001	257	0 0	068	3 .	150	34							
			089		0050		1330	356		26							150								
			S1 089		007		1270 1270	354 354		26 26		001	242	в 0	099		150 150								
			51		010		1265	354		26		001	225	3 0	130		150								
			083		0100		1265	354		26							150								
			51		012		1210	354		26		001	195	4 0	160		150								
			089	_	012		1210 1180	354 353		26 26		001	175	0 0	190		150 149								
			S1 089		015		1180	353		26		001	175	9 0	190		149								
			51		020		1040	352		27		001	030	1 0	245	,	149	54							
			089		020		1040	352		27							149								
			51		0250		0712 0712	347		27 27		000	889	6 0	293		148 148								
			089		0250		0688	347		27							148.								
			089		028		0747	349	90	27							148	56							
			S1		030		0735	349		27		000	763	3 0	334		148								
			089		0300		0735 0618	349 348		27 27							148 148								
			089		036		0717	350		27							148								
			Si		0400	0	0585	349	5	27	55	000	601	7 0	403	3	148	10							
			089		0400		0585	349		27							148								
			085		0470		0416 0454	347		27 27		000	496	5 0	457		147 147								
			089		050		0454	348		27		000	1470		• ,		147								
			089		055	0	0530	350	18	27	68						148	13							
			SI		060		0481	349		27		000	486	2 0	507		148								
			085		060		0481 0473	349 350		27 27		000	446	2 ^	553		148 148								
			089		070		0473	350		27		000	0	۷ د	- ) :		148								
			S 1	<b>D</b>	080	0	0475	350	13	27	75	000	449	4 0	598	3 .	148	32							
			OBS		080		0475	350		27		000	4.30	, -	۷, ۰		148								
			S1 089		0900		0435 0435	350 350		27 27		000	428	1 0	642		148 148								
			S1		100		0418	350		27		000	420	8 0	684		148								
			083		100	0	0418	350	00	27	79						148	42							
			SI		1100		0408	349		27		000	425	4 0	727		148								
			089		110		0408	349		27		000	4.10		7,,		148								
			0B:	TD S	120		0394	349		27 27		000	418	<b>6</b> 0	769		148 148								
				T D	130		0384	349		27		000	420	19 0	811		148								
			08		130		0384	349		27							148								
				TD	140		0383	349	-	27		000	428	14 C	853		148								
			089	S TD	140		0383 0373	349	980 98	27 27		000	424	.1 ^	896		148 149								
			08		150		0373		980	27		500	, - 2 4		J 70		149								
				_					_ 0		-														

REFERENCE	SHIP	LATITU	J D E	LONGITUDE	DRIFT	MARSDEN SOUARE	STA	TION TI		YEAR	CRUISE	ORIGIN	ATOR'S	_	DEPTH 10	MAX	08	WAVE SERVATIONS	WEA- THER	CLOUD			NODC	]
31801		ļ ·	1/15	1 1/	-	10' 1'	MD				NO.	-	UMBER	4	BOTTOM	S'MPL'		HGT PER SEA	CODE	TYPE AM		_	STATION	
1 21001	Q CV	4410	ואכ	04746	W	149 47	05 TER		)72 ] /IND	1967		99 AIR TE		$\vdash$	3840 NO.	15		12121	X 2	0 3	1	ı	0057	ŀ
						CODE	TRANS	DIR.	SPEED OR FORCE	M ETE		DRY BULB	WET	CODI	0.00	OBSEX/	CIAL 'ATIONS							
			1			DT	SD	25	510	27	4 1	11	100	7	25									
	HR 1/	GR CAST	CARD TYPE		(m)	ī °C	s	٠4.	SIGM	A-T	SPECIFIC	ALY-XI	ME OY	∆ D N. M 10 <sup>3</sup>	. SOL	OCITY	0 <sub>2</sub> ml/l		OTAL-P	NO2-N ug - 01/I	NO3-N µg - al/l	SI O4~!	ji pH	
							1		1				+		-					_	,,		+	-
	0	72	ST OBS			1263 1263	34	92 923	264		001	611	9 0	000		995 995							·	
			ST 085	<b>D</b> 00		1360	35	37	265	57	001	473	2 0	015	15	035								
			ST			1360 1383	35	370 49	265		001	433	8 00	30		035 046								
	0.0	03	085	00		1383		490	266	2					15	046								
			ST OBS			1382 1382	35	63 630	267 267		001	332	1 00	) 4 4		049								
			ST			1331	35		268		001	267	1 00	70		049 035								
			OBS	00		1331		589	268						15	35								
			S <b>T</b> I 085	D 00		1275 1275	35	47 465	268 268		001	256	7 0	101		018 018								
			ST			1250	35		268		001	2351	8 O	132	150									
			085	010		1250		438	268			22-			150	014								
			STI 085	0 01. 01.		1230 1230	35	41 410	268 268		001	225	3 0	163	150 150									
			ST	019	0	1183	35		268		001	213	7 01	194	144									
			085 085	019		1183		316	268						14	997								
			STI	010 020		1134 1140	35; 35;		269 270		001	112	۱ ۵	52	149									
			085	020	0	1140	35		270		001	112	. 0.	. , , _	149									
			STI			1000	352		271		000	9708	3 0 3	04	149									
			08s 510	029		1000 0865	352 351		271 273		000	8236		49	149									
			085	030		0865	351		273		000	0230	0 -	49	149									
			ST			0675	349		274		000	6859	04	24	148	346								
			085 ST0	040		0675 0570	349		274		000	c , ¬ ,			148									
			085	050		0570	350		276 276		000	5476	0 04	86	148									
			STO			0524	350	13	276		000	4899	05	38	148									
			0BS ST[	060		0524 0476	350 350		276 277		000		0.5	0.0	148									
			085	070		0476	350		277		000	4536	0 0 0	85	148									
			STO			0457	350		277	5	000	4411	. 06	30	148									
			085 510	080 090		0457 0439	350		277 277		000	. 20.		7.2	148									
			085	090		0439	350		277		000	4294	00	73	148									
			STO			0425	350		277	9	000	4221	. 07	16	148	145								
			DBS STD	100		0425 0410	350 350		277		000	, 205	0.7		148									
			085	110		0410	350		278		000	4205	07	58	148									
			STO			0395	349		278	0	0004	4184	08	00	148									
			085 ST0	120 130		0395 0373	349 349		278		0004	. 1 00	Λ.	42	148									
			085	130	0	0373	349		278		000	+180	00	42	148									
			STD 085	140 140		0368	349		278	0	0004	+276	08	84	148	87								
			510			036 <b>8</b> 0366	349 349		278		0004	, 2 2 2	09	27	148									
			OBS	150		0366	349		278		550	در ر .	0,	- 1	149 149									
PEFERENCE					1.1							01677	1005			MAX.				T		<sub>1</sub> -		
CTRY ID.	CODE	LATITUO		ONGITUDE	100	SQUARE	STATE	MIT NO	Y	EAR C	RUISE	RIGINA ST.	ATION		DEPTH 10	DEPTH OF	OBSE	WAVE RVATIONS	THER	COOE?		S	NODC TATION	
CODE NO.			1/10	1/10	+			AY HR.			NO.	N	J M BER	B	MOTTOM	S'MPL'S	DIR.	HGT PER SEA	CODE	TYPE AMT		_ N	UMBER	
31/8016	Eν	4425	5N   0	4908 W	1	49 49 WAI		3 1 wi		967		997		ļ	064	01	08	3 2	06	0 3			0058	
						COLOR	-		SPEED	BARO- METER		RY TEM		VIS.	NO. O85.	SPEC DBSERVA								

CTRY ID.	- SHIP	LA TITU		LONG	GITUDE	DRIFT	sat			(GM		YEA	LR.	CRUISE NO.		ATOR'	N	1	DEPTH TO DTTOM	DEPTH OF S'MPL	1	085	WAV ERVA	TIONS		WEA- THER CODE	CO	230		S	NODC TATION UMBER	
31801		4429	1/10 5 N	049	908 W	+-	149		05		HR.1/10		67		99	74		o	064	01	1		нот r		t A	06	O	3			0058	
								WA	_	1	WIND		ARO	•	AIR TEN		V15		NO.	SPI	CIAL	- 1										
								COLOR		DIF.	SPEE OF FOR	- 1"	A ETER (mbs)		ULB	BUL			OBS. EPTHS	OBSER	VA TIO	NS										
								DΤ	SC	0	8 51	5	20	7 0	56	05	6 5		09													
	MESSENGR TIME (	CAST NO.	CAI		DEPTH	lm)	1	°C	5	٠/	SIE	5MA-	т		VOLUA ALY-110		₹ △ E DYN. A X 103	٧.	SOU VELO	OCITY	02	m1/I		4-P 01/1		) TA L = P g + ol/l			NO3~N µg - at/l		рн	S C C
								_																								$\prod$
			5	TD	000	00	(	560	3.2	67	2	578		002	221	6	000	0	14	704												
	149	5	0.6	S	000	0 (	(	560	3.2	66	9 2	578							14	704												
			08	S	000	_	(	1557		68		580							14	704												
				TO	00			1495		69		587		002	136	2	002	2		679												
	000	)	08		001			1495		69		587								679												
				TO	002			295		78	_	614		001	881	6	004	2		597												
			08	-	002			295		78		614		001		,	004	_		597												
			08	TD	00			)120 )120		290 289		636 636		001	669	4	006	U		523 523												
			08		00:			1115		309		652								524												
			08		004			054		309		657								498												
				TD	005			051		310		657		001	477	8	009	1		498												
158			08		009			0051		309		657							144	498												
			08	S	009	55	(	050	3.3	309	4 2	657							144	498												

REFE	RE	NCE	F	Т					_ <u>#</u>	MA	RSDEN	П	STATIC	N TI	ME			ORIGIN	ATOR"	s	_	EPTH	MAX.		w	A V E		WEA		LOUD	1		1	
TRY		ID.	CODE		LATITE		LON	GITUDE	PRIF	so	UARE			W 1)		YEAR	CRUIS		STATID		1	10	DEPTH	08		ATION	15	THER	C	ODES			51.	DDC ATION
DDE	╀	NO.	+	4-		1/10	_	1/10	4=	10*	1.	м	D D/	Y H	R.1/10		ND.	·   - '	NUMB	R	180	ITOM	S'MPL'S	DIR	HG	T PER	SEA	CODS	TYP	E AM	1		NE	JAMBER
31	8	01	6 EV		4424	N	04	9005w	1	14	9 49	0	5 2	3   1	152	1967	1	99	75		0 1	165	02	08	3 3	2		06		13	1		1	0059
											w.	ATER		٧	VIND	BAR	o. L	AIR TE	MP. °C	Vis		NO.	5057	CIAL	7									
											COFO		2 MAI	DIR.	SPEED OR FORCE	70.0		DRY BULB	BUL	COL	va د	OBS. PTHS	DBSERV											
											DT		SD	08	515	20	7	056	05	6 5	]	11			1									
			MESSEN TIME HR 1/	٩	CAST NO.	CA TY		DEPTH	lm i		7 1		٠ .	٠.	SIG	MA-T		IC VOLU		₹ ∆ D DYN. A X 10 <sup>3</sup>	۸. ]	ZOU		0 2 ml/		PO4-P		01AL-P		2-N - 01/1	NO3-1			рН
			1	Ť				-		1-		+			+				-		+		-+-		+		+	_	-	-		+ -	-	
			'		'	S	то	000	0	١,	505	1	327	3	25	89	00.	2116	5	0000	ו	146	82		- 1		I		1	ı		1	- 1	
			1	52		ОВ	S	000	0		0505		327	29	25	89						146												
						ОВ	S	000	1		3435		327	10	25	95						146												
			_				TD	001			0295		326		26	07	00	1949	2	0020	)	145	94											
			0	00	l	0В		001			295		326		26							145												
							ΤD	002			1184		327		26		00	1847	4	0039	7	145	48											
						ов	-	002			0184		327		26							145												
							ΤD	003			150		328		26	-	00	1699	6	0057	7	145												
						οВ	-	003			0150		328	-	26	_						145	36											
						ОВ		004	-		0034		329		26							144												
							ΤD	005			0033		329		26		00	1563	8	0090	)	144												
						ов	-	005			0033		329	-	26							144	88											
						_	TD	007			0028		329		26		00	1553	1	0129	9	144												
						ОВ	-	007			0028		329	_	26							144	90											
						-	TD	010			0019		329		26		00	1545	8	0167	7	144												
						οв	-	010			0019		329		26							144	90											
							TD	012			0012		329		26		00	1542	4	0206	5	144	91											
						ов		012			0012		329		26							144	91											
						-	TΟ	015			0006		330		26	51	00	1525	0	0244	٠	144	93											
						ов	S	015	5	(	0005		3 3 0 1	00	26	51						144	93											

REFER	RENCE	SHIP					<u> </u>	MARS	DEN	IT ATZ	DN TI	ME		T	ORIGII	NATO	's		DEPTH	MAX. DEPTH		WAV SERVA	E	WEA		םו			NODC
CODE	ID. NO.	CODE	LATITU	- 1	LONGII	TUDE	DRIFT						YEAR	CRU	ISE	STATI			ID BOITOM	OF				THER	- 1	- 1			TATION
-	140.	-		1/10				10.	1.	MO D	AY HE	.1/10		-		NUM	SCK.	$\dashv$		S'MPL'S	DIR	нстр	ER SEA		1,,,,	$\neg$		-	
31	8016	Eν	4422	5N	0485	25W		149				60	1967	7		76			0805	08	08	11	4	05	01	3			0060
									WAT	_	w	IND	BAR		AIR TI			217	NO. 085.	SPEC	CIAL								
									COLOR	TRANS.	DIR.	DR FORC	1 7		DRY BULB	BU		ODE	DEPTHS	DBSERV	ATIONS								
											-		+-	$\rightarrow$		+-		_				ĺ							
			_				_		DT	<u>  SU</u>	00	500	20	77 1	056	10		3	21			Ļ—	- 1						1
		MESSENC	CAST	CARI		DEPTH I	mj	ĭ	*c	s	٠/	SIG	MA-T	SPEC	IFIC VOL	UME	₹ Z	i. M.	VELD		D 2 ml/l			TOTAL-P			NO3-N	\$104-5	рН
		HR 1/1		iiri	٠ _					<u> </u>		<u> </u>		- ~ "	Omati-		X	103	VILL	CIT		he.	- 01/1	VQ - 01/1	01 - פע		μg - αt/l	yg = ot/i	ļ
												Ì										-							
		•		S1	01	000	0	0	349	328	31	26	12	0	0190	39	00	00	14	617									
		16	0	089	5	000	0	0	349	328	310	26	12						14	617									
				S1		001			250	328			22	0	0810	39	00	19		577									
				OBS		001			250	328			22							577									
				S1		002			070	328			37	0	0165	98	00	36		499									
		00	)1	089	-	002			070	328	370		37	0	0153	, ,	00	<b>-</b> 2		499 458									
				\$1 0B\$		003			025		770		50 50	0	0155	, ,	ŲŪ	2		458 458									
				S1		005			078	33(			56	0.	0147	9.1	00	82		438									
				OBS		005			078		20		56	•	01	-	••	-		438									
				0B		006			114	330			61						14	423									
				Si	01	007	5	-0	104	331	13	26	66	0	0138	45	01	18	14	431									
				083	-	007			104	331			66							431									
				S1		010			065	332			72	0	0132	37	01	52		455									
				OBS		010			065	332			72							455									
				OBS		012			081	332			75	0	. 1 2 0	, ,	o 1	۰.		451									
				S1		012			075 075	332			76 76	U	0128	4 3	01	04		455 455									
				0B3		015			045	333			84	0	0121	1 4	02	15		474									
				OBS	-	015			045		380		84	0	0121	10	02	.,		474									
				S1		020			080	337			06	0	0101	10	02	71		545									
				OBS		020		Ö	080	337	730		706						14	545									
				S1	T D	025	0	0	220	34	18	27	132	0	0077	35	03	16	14	621									
				OB:		025			220		180		132							621									
				0B3	-	028			408		086		47							712									
				083		029			389	346			52			۰.				707									
				\$1		030			390	346			52	0	0059	85	03	50		709 709									
				085	-	030			390 441	349	29		52 68	0	0044	1 2	04	03		709 750									
				S1 OB3		040		-	441		900		68	U	0046	1 2	04	د ن		750 750									
				S1	-	050		-	439	349			70	0	0046	13	04	49		766									
				OBS		050			439	349			70				٠.	• /		766									
				s.		060			429	349			771	0	0046	01	04	95		779									
				OBS		060			429	349			771	•			-		_	779									
				s.		070			424	349	9 I		771	0	0046	43	05	41		793									
				OB:	S	070			424	349		_	771							793									
				OB:	S	078	0	0	422	349	937	27	773						14	806									

FERENCE	SH		JDE I	LONG	GITUDE	DAIFT	MARS	OEN ARE	STATIC	N TIA	ΛE.	YEAR.	CRUISE	RIGIN	TOR'S	$-\Gamma$	DEP1	H	CF	085	WAVE ERVATI	ONS	WEA-	CLOUE			NOO	ON
ID.	COI	DE .	1/10		1/18	) a z	10*	3:	MO DA	Y HR	.1/10		NO.	N	LIMBER	-	BOTTO	5'A	MPL'S	DIR.	HGT PE	R SEA	CODE	TYPE A A	AT		NUM	BER
1801	6 E	V 442	) N	048	339 W	4 1	149					967		99			191	0	15	12	2 3		04	0 3	. 1	ļ	00	61
							ļ	WA.	1		SPEED	BARO	·-	ORY TEA	WET	VIS.	NO.	- 100	SPECI SSERVA	AL								
							ļ	COLOR	Im)	OIR.	OR FORCE	(mbs		ÚLB.	BULB	COOL	OEPTI	HŞ U		110/43								
								DT	SD	23	\$05	16	3 0	78	078	3	30											
		ENGR CAST	CAF	0	DEFTH	(m.)	,	°C	5.	/ <b>.</b> .	SIGM	A - T	SPECIFIC	VOLU	yE ₹	∆ 0 N. M 10 <sup>3</sup>		SOUND		02 ml/l	PO		TOTAL-P	NO2-N				рΗ
		1/10 NO.	TYF	E					ļ .				ANUM	ALT-II	,	103		ELOCII	14		>0 -	01/1	μg • οι/l	υg - α1/I	yg - at/l	yg = al.	4	_
				_	0.07			272	328	2	   261	0	001	422	١	000	Ι,	458	1						1	1	1	
		170	0B	TD S	000			272	328		261		001	0 ) 2	0	000		458										
			S	TD	00	10	0	179	328	2	262	7	001	764	1 0	018		454										
			ОВ		00			179	328		262		001	7.26		026		454 452										
		003	5 0B	TD s	00			130 130	328 328		263 263		001	125	0 0	035		1452										
		303		TD	00			058	328		263		001	660	9 0	052		449										
			ОВ		00			058	328		263							445										
			S OB	t D	00			134 134	330 330		265		001	4/5	9 0	084		L441 L441										
				5 TD	00			139	331		266		001	389	9 0	120		441										
			ΟВ	S	00			139	331	80	266							441										
				TD	010			112	331		267		001	333	7 0	154		L443 L443										
			OB S	TD	010			025	331 334		267 268		001	175	7 0	185	. 1	448	30									
			08	5	01			025	334		268					3.0		1448										
			S OB	TD	01			048	336 336		269 269		001	090	8 0	213		L 452 L 452										
				5 TD	020			145	338		271		000	940	8 0	264		457										
			ОВ	5	020			145	338		271					3		1457										
			S 08	TD .	02			263	3 4 3 3 4 3		27:		000	712	1 0	305		1464 1464										
				TD.	03			410	346		279		000	626	3 0	339		1471										
			ОВ		0.3	00	0	410	346		279							1471										
			08		03			434 1399	346 346		27							1472 1473										
			08 08		03			445	347		279							1473										
			08	\$	03	40		410	347		27							1472										
			08		03			1459 1432	348 347		276							1474 1474										
			0 B	TD.	0.4			1434	348		276		000	529	5 0	397		1474										
			OB		04			434	347		27						]	1474	46									
				TD	05			464	349		27		000	447	2 0	445		147										
			08	S TD	05 06			464	349		27		000	455	0 0	491		147° 1478										
			OB		06			1450	349		27							1478										
				TD	07			1439	349		27		000	)429	4 0	535		1480										
			08	TD.	07 08			439 1421	349		27° 27°		000	)443	2 0	578		1480 1480										
			08		80			1421	349		27		000					1480										
				TD	09			1412	349		27		000	)442	2 (	1623		148. 148.										
			08	5 5TD	09 10			)412 )404	349 349		27 27		000	)447	9 0	1667		148										
			OE		10			404	349		27							148										
				TD	11	-		402	349		27		000	)455	5 0	712		148										
			OB	15 5 <b>T</b> O	11 12			394	349		27		000	)452	5 (	758		148! 148:										
			0.6		12			394	349		27		500	, , , , ,	_ (			148										
			5	CTS	13	00	(	394	349	4	27	77	000	)46]	5 (	803	3	148	81									
			OB		13			394	349 349		27 27		000	)460	. 1 .	850		148; 148;										
			OE	STD BS	14			390	349		27		000	, 400	(	,000		148										
				TD.	15	00	(	385	349	95	27	78	000	)462	4 (	1896	5	149	11									
			OE	35	15	00	(	385	349	949	27	78						149	11									

CE D.	SHIP	LATITE	DE		GITUDE NOCTH	MAR	SDEN	STAT	ION T	3.61	YEAR	CRUISE	ORIGIN,	TATI	ION	DEP	DEF	OF	0858	WAVE RVATIO		WEA- THER CODE	CLOUD		51	NODC ATION UMBER
10.	CODE		1/10			10*	1.	мо Т		185	1967	NO.	99	W U	BER	260	3 //(	15	DIR. 22	3 Z	SEA	06	O 3		_	0062
16	٤v	4417	I DIN I	04	8255W	143	48 WA			VIND	BAR	0-	AIR TEA	AP.	V#5	NO		SPECIA	AL	J   ~	1	1 00	, 0.5	1	'	0001
							COLOR	TRANS.	DIR.	SPEES OR FORC	1		DRY BULB	BC.	ET COD	DEPT	>	ERVA.	TIONS							
			_			,	DI	SD	26	51	2   20	00 (	78	0	78 3	31	d				-					
	MESSENGR TIME (	CAST NO.	C A1	RD PE	DEPTH (m)	т	*C	s	٠/	SIG	M A - T	SPECIFI	C VOLU	M.€ 0.7	\$ △ C DYN. A x 10 <sup>3</sup>	À. ,	SOUND /ELOCITY	, c	02 ml/l	PO4-		10TAL-# µg = a1/1	NO2~N ug = 01/1	NO3-N µg = 01/1	\$1.04-St ug = ot/1	рН
	HR 1/10	-		$\dashv$				+		+		-		-		-		1			1				-	
		F	5	TD	0000		279	32			526	00	1770	2	000		1458									
	189	5	08	S TD	0000		279	_	909 95		526	00	1669	5	001		14589 14550									
			ОВ		0010		185	3.2	950		536	•			•		14550	0								
		_		10	0020		140	33			545	00	1586	В	003		1453. 1453.									
	00;	2	0B	IS ITD	0020		0140	33	020		545 560	00	1447	1	004		14470									
			ОВ		0030	(	0010	33	109	2	560						1447									
			08		0040		0001		210		568 573						1447! 1445									
			0B \$	10	0042 0050		0001		27		573	00	1318	6	007		1447									
			0.8	\$5	0050	→ (	0001	3.3	270	2	673						1447									
			08 08		0060 0069		0045		350 390		582 579						1445° 1451									
				TD	0075	- (	0021	33	42	2	586	00	1192	7	010	8	1447	4								
			08		0075		0021		422		586	0.0	1066	,	013		1447 1451									
			08 08	TD Is	0100		0050 0050		66 660		702 702	00	1046	•	013		1451									
			08		0110		159		830		709						1456									
			08		0120		0113		870		715	0.0	0880	0	016		1454 1459									
			08	TD K	0125		0200		01		720 720	00	vaav	0	010		1459									
			08		0127		0246		110		724						1461									
			0.6		0130		0149		020		725	0.0	0790	Ω	018		1456 1466									
			0.5	STD BS	0150 0150		0356 0356		31 310		730 730	00	0790	0	010		1466									
			S	TD	0200	(	0455		64	2	746	00	0649	9	021		1472									
			OE		0200 0250		0455 0549		640 90		746 756	0.0	0569		024		$\frac{1472}{1477}$									
			0.5	STD BS	0250		0549		901		756	00	0 2 0 9	-	0 - 4		1477									
			0.6		0260		0525		880		757						1476									
			0 E		0270 0281		0539 0501		909 850		758 758						1476 1475									
				STD	0300		0512		89		759	00	0541	0	047		1476									
			0.6		0300		0512		888		759						1476									
			06		0351 0380		0441 0509		910 980		769 767						$\frac{1474}{1477}$									
				STD	0400		0480	34	93	2	766	00	0484	6	032	ь	1476	7								
			06		0400		0480		929		766 768						1476 1476									
			0.6	55 57D	0420 0500		0456 0459		95		770	00	0456	2	037		1477									
			O E	35	0500		0459		949		770						1477									
			O E	STD	0600 0600		0437 0437		195 1950		773 7 <b>7</b> 3	00	0440	4	041		1478 1478									
				5 <b>T</b> D	0700		0428		97		775	00	0426	0	046		1479									
			O.E	35	0700		0428		969		775						1479									
				STD BS	0800		0435 0435		199 1988		776 776	0.0	0430	)5	0>0	4	1481									
				5 T D	0900		0416		99		778	00	0417	74	054	7	1482	4								
			0.6	35	0900		0416	34	988	3 2	778				058		1482									
				510 35	1000 1000		0401 0401		+99 +988		780 780	0.0	0408	5 o	028	a	1483									
				5 T D	1100		0390	34	98	2	780	00	0414	+2	062	9	1484	+6								
			08	35	1100		0390		979		780	00	041	. 0	067	1	1484 1486									
				51D BS	1200 1200		0385 0385		•98 •975		780 780	0.0	0416	ノブ	007	1	1486									
				STO	1300		0383	3 4	+98	2	781	0.0	0423	3 3	071	3	1487	7.7								
				35	1300		0383		+975		781	0.0	0630		0.75		1487									
				STD BS	1400 1400		0380 0380		+98 +979		781 781	00	10428	5 4	075	2	1489									
				STD	1500		0371		98		782	0.0	0425	51	079	8	1490									
				BS	1500		0371		975		782						1490									

FERENCE	SHIP	LATITU	06	LONG	ITUDE	NDCTR	MARSDEN	STAT	ON TH	M.E	YEAR		ATOR'S		DEPTH	MAX. DEPTH	OB	WAVE	WEA-	CLOUD			NODC
NO.	CODE	·	1/10	LUNG	1/10	2 2			AY H	1.1/10	ICAK	CRUISE NO.	STATION NUMBER		BOTTOM	OF S'MPL'S		HGT PER SEA	0000	TYPE AM	1		UMBER
18016	ΕV	4414	5N	048	06 W		149 48				1967	99	79		3365	15	22	3 2	04	0 3			0063
							WA	TER	w	INO ,	BARG	J•	MP. °C	vis	NO.	SPE	CIAL						
							COLOR	TRANS.	OIR.	OR FORCE	METE (mbs		WET	CODE	OBS. DEPTHS	DBSERV	ATIONS						
							DT	5D	27	516	20	3 094	094	2	45								
	TIANE	CAST NO.	CAS	D E	DEPTH (	n)	T *C	s	٠/٠.	SIGA	A A - T	SPECIFIC VOLV	AME D	∆ D YN. M K 10 <sup>3</sup>	SOL	DOLLA	O2 ml/l	PO4-P	1ΟΤΑ L — P μg - α1/I	NO2-N ug - at/!	NO3-N 49 - 01/1	St O4-Si yg - qt/	
	HR 1/10	-				_		-							+			+ +					+
	1	1	S	TD	0000	)	0497	33	17	26	25	001776	8 0	000	14	685		'		'	1	1	
	20	0	08		0000		0497		170	26		0017/				685							
			OB.	7 D	0010		0470 0470	33:	150 150	26 26		001764	5 0	018		675 675							
				TD	0020		0355	332		26		001609	4 0	035		629							
	0.0	2	QВ	5	0020	)	0355	332	209	26	43				14	629							
				T D	0030		0250	33		26		001558	6 0	050		584							
			0B 0B		0030		0250	33		26 26						584 566							
			08	-	0036		0275	33:		26						599							
			QВ	S	003	3	0230	334	+40	26	72				14	581							
			OB		0040		0290	334		26						608							
			0B 0B		004		0246 0280	335		26 26						589 606							
				TD.	0050		0252	339		26		001266	0 0	079		594							
			OВ	\$	005		0252	335	550	26						594							
			ОВ		006		0321		086	26						627							
			OВ		006		0300		570	26				1.00		619							
			oB	TD S	007	5	0378 0378	338	331		90 90	001166	2 0	109		656 656							
			0В		009		0409		050	27						674							
			S	ŢD	010		0385	34			11	00097	27 (	136	14	667							
			0B 0B		0100		0385 0269		100	27 27					14	667 620							
				5 TD	012		0321	34.		27		000820	1 0	158		645							
			ОВ	5	012		0321	34	225	27	27				14	645							
				TD	015		0440	34		27		00070	34 0	177		704							
			0B 0B		0150		0440 0439		540	27 27						704 710							
				TD	020		0395	340		27		000608	37 0	210		694							
			ОВ	5	020		0395	346	510	27						694							
			OВ		021		0449	-	580	27						719							
			0B 0B		021		0409		570 730	27 27						703 723							
			QВ		023		0431		710	27						716							
			QВ		024		0490		320		57					744							
				TD	0250		0476	348			57	000559	91 0	239		739							
			08		025		0476		713	27						739 702							
			0В 5	5 †D	030		0380 0390	34	-	27	60 62	000508	37 0	266		710							
			ОВ	5	030	)	0390	34	749	27	62		·		14	710							
			OB		0370		0487		950	27						765							
			QB QB		0380		0470 0540		929 039	27	67 68					759 792							
				5 <b>1</b> D	040		0520	34			66	000490	7 0	316		784							
			ОВ		040		0520	-	985		66			- 0		784							
			0В		042		0510		007		69					784							
				TD	050		0480	34			71	000450	)6 0	363		784							
			0 B	5 TD	050		0480 0451	34	990	27	71	00044	72 0	407		784 789							
			08		060		0451		990		74	300 12	0			789							

REFERE	NCE	SHIP		. T	LONGITUDE	PCTR DCTR	MARS	DEN ARE	STA	TION	TIME	YEAR	CRUIS	ORIGIN	STATIO	N.	DEPTH	MAX. DEPTH	0		A TIONS	Ţ	HER ODE	COU	DES			NODC STATION STATION
TRY ODE	ID.	COOE	LATITUE	1/10	1/1		10"	1.0	мо	DAY	HR,1/10	1	NO.		NUMB		BOTTOM	S'MPL'S	DIR.	нст	PER S	EA .	.001	TYPE	A MT		-	
-	140.	-		17 10		<del>*</del>  -		1											1								- 1	
		Į i		1		ı	1 1	WAI	ER	$T^{-}$	WIND	BAR		AIR TE	EMP. T		NO.		CIAL	7								
								COLOR	TRAN	S. DIR	SPEE	O MET	ER	DRY	WE		OBS.	OBSERV		s								
								CODE	Im1		FOR		s)	BULB	801	.8	-			-								
							1		1				1				l											
									T					IC VOL		₹ A D		DNU	0 2 m		PO4~P		4 L - P	NO2-		NO3-N	SI O4-	
		MESSENG	R CAST	CARD		t (m)	, ,	*C	'	s •/	SI	GMA-T	ANO	MALY+)	x102	X 10 <sup>3</sup>	. AEF	.0011	0,7		9 - 01/1	10.	01/1	ηg + c	31/1	νg - α1/l	yg - al.	
		HR 1/1	0				+-		+	_	_		+	_													1	
					l		1		1		-		1		1		1	1		'		'						
							_		2.	+98	2	775	٥٥	043	1 1	0450	14	4801										
				ST		00	-	441		+90 498	_	775	00	0 13	1.			4801										
				OBS ST	-	00		428		497		776	00	043	39	0493	14	4812										
				085	-	00		428	_	497		776						4812										
				51		00		410	3.	497	2	777	00	042	35	0536		4821										
				085		00		410	3	497		777						4821										
				ST		00	(	399	3	497		778	00	042	11	0578		4833										
				089	10	00		399		496		778				0 - 2 -		4833 4846										
				ST		00		389	-	495		778	00	042	84	062		4846										
				089		00		389		495		778	0.0	042	4.2	066		4859										
				ST	-	00		380		495		779	00	042	0 4	000.		4859										
				089		00		380	_	495 495		779 780	0.0	043	06	0706		4874										
				\$1	-	00		)376 )376		495 495		780	00	U T J	· ·		-	4874										
				089	,	00		375	-	495 496		780	0.0	043	2.8	074		4890										
				S1	-	+00		375	-	496		780	•			-		4890										
				089		00		370		495		780	0.0	043	392	079	3 1	4905										
				0B:		500		0370	-	495		780					1	4905										

ID, NO.	SHIP	LATITU	DE 1/10	LON	NGITUDE	DRIFT	MARS SQU	ARE		ION III		YEAR	CXDIZ	ε 9	ATOR'S STATION		DEPTH TO BOTTON	. OF	Н ОВ	W A VE SERVA T		WEA THER	CODE			NODC STATION
0.3.	E						10"	1*		DAY HE			NO.	<del>  '</del>	NUMBER		BUITON	" S"MPL	'S DIR.	HG" PE	R SEA	CDDI	TYPE A N	ī	'	NUMBER
016	EV	4412	N	04	758 W		149				32	196	7		80		3713	1 11	21	3 2	:	02	17/8			006
							- 1	WA	_	W	SPEED		RO-	AIR TE	MP. °C	vis.	NO.	( )	ECIAL						,	000
								COLOR	TRANS.	DIR.	OR	1000	TER bs}	DRY BULB	WE1	CODE	DBS. DEPTHS	O DEED	VATIONS							
										02	508	-		)67	067	+-	1 20	-								
	MESSENGR					-			1	02	500					-	10	١.,					_		,—	
	TIME	g NO.	CAR		DEPTH (r	m)	1	°C	s	*/**	SIG	7-AN	SPECIF	C VOLU	07 D	yA. ₽		UND	02 mt/	PO.		TOTAL-P	NO2-N	NO3-N	SI 04-S	, pH
	HR 1/10					_	-		-				+			X 103	VEL	OCITY		ид -	01/1	μg - ο1/l	ug = at/1	yg - at/t	μg = α1/1	'
		1 (					1								- 1											
	24	,	- S - OB.	TO.	0000			706	33		26		00	1735	1 0	000		774								
	24.	1		70 5	0000			706 836	33	556	26							774								
				TO	0020			948	34		26 26			1570		017		832								
			_	TD	0030			043	34		26			1444 1356		032		881								
				T D	0050			180	35		26			1200		046		921								
	24	1	OB:	S	0070	)		248		397	26		00.		_	0 / 2		008								
			S	ŢΟ	0075	5	1.	247	35	36	26		00	280	7 0	104		008								
	241	1	OB:	S	0095	5	1.	235	35	252	26	74			_			005								
			S	ΤD	0100	)	1;	227	35	27	26	76	00	315	9 0	136		004								
				T O	0125			186	35	34	26	90	00	195	2 0	167		995								
	241	1	OB5	5	0141		1	159	35.	358	26	96				•		988								
				D	0150	)	1	152	35	35	26	97	001	132	4 0	196	14	987								
	241	1	OB:		0191		10	72	35.	246	27	04						964								
			S1		0200		1(	13	35	17	27	38	001	034	5 0	251		944								
			S 1	D	0250	)	0 '	765	34	90	27.	27	000	856	9 0	298		856								
	241	l	QB5	5	0267		0 7	712	341	356	27	31						837								
			S 1		0300		0	709	349	94	27	3.8	000	7564	4 0	338		843								
	241	L	OBS		0354		06	90	350	040	27	48						845								
			S 1	0	0400	1	06	26	350	00	275	54	000	6144	4 0	407		827								
			S 1		0500	)	0 5	26	349	95	276	53	000	5364		464		802								
	241		085	>	0541		0.4	+99	349	946	276	55						798								
			S 1		0600		04	+97	349	8	276	58	000	4898	8 0	516		807								
			ST		0700			93	350	1	27	71		474	_	564		823								
	241		OBS		0737			91	350		27	72						828								
			ST		0800			82	350	1	27	7.2	000	4736	8 0	511		835								
			ST		0900			62	349	9	27	73	000	4728		559		843								
			ST		1000			33	349	7	27	75	000	4601		705		848								
	241		OBS		1073		04	0.8	349	58	277	77						849								

REFERENCE CTRY ID. CODE NO. CODE 318016 EV	4425	1/10	1/10 04908 W	MAR SQU 10°	1° 49	05	24 (	064	YEAR 1967	CRUISE NO.	E !	TATION'S STATION NUMBER		DEPTH TO BDTTOM	2.Wh	DIR.	7-1	TIDNS	TH CC	DE T	CLOUI CODE	2		NODC STATION NUMBER
					COLOR		_	SPEED OR FORCE	I WE I	ER .	AIR TEA	WET BULB	VIS.	NO. OBS. DEPTHS		CIAL /ATIDHS	]		,		- 10		ı	0065
							33	510	24	7 0	)56	056	6	0.4			İ							
MESSENGE TIME HR 1/10	CAST NO.	CARD		n) T	°C	s	٠,.	SIGA	r-AA	SPECIFIC	C VOLU	7" DY	△ D N. M.		JND DCITY	0 2 ml/:		4-P	TOTAL		D <sub>2</sub> →N - al/l	NO3-N	SI O4=S	
06.		ST OBS ST	0000 D 0010	) ő	531 531 530	326 326 326	587	25 25 25	83		176		000	14	692 692 693	_					_			
064		OBS ST OBS	D 0020 0027	0	530 356 248 209	327 327	795	25) 26) 26)	83 06 19	001	964	1 00	143	140	693 623 578									
064		STI		00	061	328 330 330	3	265 265 265	51		7854 532		61 94	149	562 502 500									

CODE NO. CODE	4424	1/10	0NGITUDE 11/10	+	MARSDEN SOUARE 10' 1 149 4	• MO 9 05 WATER	,   01	HR, 1/ 07 WIN R. 5	YE 10 4 19 PEED OR ORCE	BARO METER (mbs)	R		8 2 MP.	ON BER C ET	VIS.	0165 NO.	SPI	t (	3 .	VAVE RVATIO IGT PER 2 2	SNC	WEA THE COD	R C	LOUD CODES	}		AT2 UN	DDC TION MBEP	
MESSENGR TIME OF	CAST NO.	C ARD TYPE	DEPTH	[m]	T 'C		s ·4.	-	10 SIGMA		SPECI	FIC VOLT	UME	∑ I	△ D 4. M. 10 <sup>3</sup>	50	OCITY	071	nI/I	PO4		rotal- ug·ol		0 <sub>2</sub> -N - 01/I	NO3~1		04-51 - a1/1	рН	
074		\$10 085 510	000	0	035 035 027	6 3	277 276 279	6	260 260 261	8	00	)1943 )1851	75	00	000	14	620 620 587	1			1		1		I	1	1		
074	,	510 085 510 510	00:	25 30	019 016 011	52 3 17 3	283 284 3287 3295	4	262 263 263 264	0 5	00	)1769 )1686 )156	66	0(	) 37 ) 54 ) 87	14	4555 4540 4521 4471												
074		085 ST	00 00	51 75	-000 -00	06 1	3295 3296 3295	1	264 264 264	8	00	155	33	0	126	14	4470 4472 4472												
074		085 511 085	01	00	-00 -00 -00	42 45	3297 3297	7 79	265 265	1		0152			164	14	4462 4461 4453												
074	•	5†! 085			-00 -00		3311		266 266		U(	0140	10	U.	401		4452												

REFERENCE SHIP	LATITUDE 1/10		CILIDE 1/10	MARS SOU	ARE		MTI	M.E R.1/10	YEAR	CRUISE NO.	ORIGIN:	ATOR'S TATION TUMBER		DEPTH TO BOTTO	D	MAX EPTH OF MPL*S	OB DIR.	SERV	A VE VA TIC	ONS SEA	Ţ	PER ODE	CLOU	ES			NOD STATE NUM	ON
318016 EV	44225N	048	8525W	149	48	05 2	4 (	085	1967	1	99	83		0818	3	08	34	2	3		>	x 2	7	8			00	67
1 210019 2.1					WAT	ER	٧	VIND	BAR	2	AIR TEA	лР. °С	VIS	NO.	T	SPEC	141	1										
					COLOR	TRANS.	DIR.	SPEED OF FORCI	M ET	ER	DRY ULB	W ET BUL8	000	OBS. DEPTH	S OF		TIONS											
							02	507	26	8 0	44	028	B 7	10														
MESSENGR TIME O	CAST C.	ARD YPE	DEPTH (m)	1	*c	5 *	<b>4.</b>	SIG	MA-1	SPECIFIC	( VOLU		₹ Δ D DYN, M X 10 <sup>3</sup>	, , ,	DUNG		O <sub>2</sub> ml/	1	PO 4-		101A		NO2← µg - ol		NO3-N µg - at/1	\$1 O4= pg - al		рН
																											1	
'		STO	0000		333	327			10	001	920	1 (	0000		46]													
085		85	0000		333	327			10			_	0010		461													
		5 T D	0010		317	327			13		891		0019		460													
		STD	0020		270	328			19	00	838	,	0038		458													
085		85	0025		234	328			23		. 7.0.0	2	005		45													
		STD	0030		155	328			30		1733		0056	-	45													
		5 T D	0050		0.72	329			48	00.	1556	8	0088		44: 44:													
085		85	0051		080	329			49				012		44. 44(													
		STO	0075		150	330			59	00.	1454	5	0126	_	44(													
085		85	0076		151	330			59	0.0		,	017		44													
		5TD	0100		133	331			65	00	1396	1	016		44.													
085		85	0102		131	331			65	0.0	1277	. 0	0196		44													
		STD	0125		105	331			67		1372 1293		0230		44													
		5TD	0150		069	332			75	00	1293	12	0230		44	-												
085		BS_	0153		0064	332			577	00/	921	2	048		45.													
		STD	0200		0031	338			715	000	J 7 Z I	- 4	040.		45													
0.85		85	0202		0035	338			717 735	001	0741	1.	032		45													
		STD	0250		170	341					0615		036		46													
		STD	0300		286	344			750				041		47													
		5 <b>T</b> D	0400		0440	348			766	00	0482	. 5	041		47													
08		85	0407		)447	348			767	0.0			06.0		47													
		STO	0500		0433	349			769		0462		046		47													
		STD	0600		0422	349	-		770	00	0460	) [	050															
8 0		85	0615		0421	349			771				0 1- 0		47													
		STD	0700		0416	34			772	00	0459	14	055	-	47	-												
0.8	5 0	85	0766	- 1	0415	34	905	2	772					1	48	UÜ												

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REFERENCE CIRY 10.	SHIP	LATITUE	DE L	ONGITUDE E	MARS		STATION THE		YEAR	_	RIGINAT			DEPTH	DEPTH		WAVE ERVATIONS	WEA- THER	CLOUD			NODC
ODE NO.	COOE	•	1/10	· '1/10 0 2	10*	17	MO OAY HE	R. 1/10		CRUISE NO.	NU	MBER		BOTTOM	S'MPL		HGT PER SE	2000	TYPE AM	J		STATION NUMBER
31801	EV	4420	N C	)48395W	149				967		998			2158	11	. 32	2 4	X 2	7 8			0068
						COLOR	TRANS. DIR.	SPEED OR FORCE	METE (mbs	R DF		, ℃ WET BULB	VIS.	NO. OBS. DEPTHS		CIAL VATIONS						
							00	SOO	27		-	039	7	12	_	_						
	MESSENG# TIME	CAST	CARD	OEPTH (m)	т	°c	s 1/4.	SIGM	A-T	SPECIFIC		DY	Δ D.	SOL	DOUTY	O2 ml/l	PO4~P	TOTAL-P	NO <sub>2</sub> -N	NO3-N		
	HR 1/10			+	-							X	103	+	-		μg + σ!/I	μ <b>g - αt/l</b>	µg - 01/1	yg - ot/l	μg - αl.	1
			STO				3273	•	'			'		J	1		. ,	'	ı		I	1
	10	1	085 STD	0000			32734 3279															
			STO				3284															
	10	1	OBS	0025		029	32860	263						14	481							
			STO		-0	016	3288	264		0016					461							
	10	1	085	0050	-0		3297 32967	265 265		0015	020				412 412							
		•	STO			125	3313	266		0013	763				412 421							
	10	1	085	0075		125	33131	266							421							
	10		STD			108	3320	267		0013	243				434							
	10	L	OBS STD	0100		108 048	33204 3335	267 268		0012	37.7				434							
	10	1	085	0149		011	33526	269		0012	342				468 502							
			STD			14	3354	269		0011	180				504							
			STD			142	3399	272		0008	524			14	576							
	101	l	OBS STD	0200		142 305	33994 3441	272 274		0006	7.0				576							
			STO			+05	3469	275		0006					661 716							
	101	i	085	0300		05	34688	275		0003					716							
			STD			18	3481	276		0005	050				739							
	101	l	085	10400		18	34807	276							739							
	101		STD OBS	0500 0598		+34 +38	3487 34907	276 276		0004	861				763							
			STD			+38	3491	276		0004	735				782 782							
	100		STD	0700		20	3491	277		0004					791							
	101		OBS STD	10795		80	34902	277		0001					302							
			STD			+08 +05	3490 3491	277 277		0004					303 318							
			STD	1000		03	3492	277		0004					334							
	101		085	1097	04	00	34929	277	5					148	349							
FERENCE					MARS	000	AIT MOLTATE	45		0.0	UGINAT	OPIS			MAX.	1	WAVE	1	51.0115			
Y 10.	COOE	LATITUO	-	ONGITUDE E	SOU	RE	IGM11		/E A R	CRUISE	STA	TION	$\dashv$	DEPTH TO	OEPTH		ERVATIONS	WEA- THER	CLOUD			NODC
NO.	0000	•	1/10	* 1/10 E	10"	1.	MO DAY HR	.1/10		NO.	NU	MBER	_	BOTTOM	S'MPL'	S DIR.	HGT PER SEA	COOE	TYPE AMT			NUMBER
18016	EV	44175	5N   0	4826 W	149				967		9985			3072	11	00	0 0	X 2	7 8	İ		0069
					-	WAT		SPEED	BARC	·-	R TEMP.	WET	VIS.	NO. 085.	SPE	CIAL /ATIONS						
						CODE	(m) Ong	FORCE	(mbs		LB 8	ULB		DEPTHS	OBJEK	7 110113						
	MESSENGR	7242	CARD	Ţ	T -			500	284	SPECIFIC V		39	6 A. M.	12		l.	PO4~P	TOTAL-P	NO <sub>2</sub> -N	NO3-N	\$104-	
	TIME HR 1/10	NO.	TYPE	OEPTH (m)	Ť	TC	s *4.	SIGMA	<b>\_</b> T	ANOMAL		OY X	N. M. 10 <sup>3</sup>	VELC		O2 m1/l	μ <b>0 - 01/</b> Ι	µg - 01/1	μg - at/l	ug - al/1	μg - αt/	
				0000		310	2202	767	_	0010	1120			1,								
	12:	3	STD OBS	0000		310 310	3283 32833	261 261		0018	1530	00	000		601 601							
		,	STD			266	3285	262		0018	1049	00	018		584							
			STD	0020	0.	216	3289	262	9	0017			36	14	564							
	123	3	OBS	0025		188	32912	263		0016	.615	^	162		553							
			ST0			146 025	3294 3308	263 265		0016			) 53 ) 84		535 486							
	12:	3	OBS	0050		025	33081	265		0017		00			486							
	123		085	0074	-00	25	33341	268	0					14	471							
			STD			020	3335	268		0012			118		473							
	123	3	STD OBS	0100		105 105	3364 33642	269 269		0010	1929	0:	148		538 538							
	16	,	\$TD			246	3403	271		0009	1021	0.1	172		538 610							
	123	3	085	0149		342	34301	273		5507					659							
			STD	0150	0 :	344	3431	273	2	0007	794	0	193	14	660							
	123	3	OBS	0199		421	34577	274		000	5.00	_	2 2 4		704							
			STD STD			421 420	3458 3463	274 274		0006			229 261		705 713							
			STD			419	3471	275		0005			291		722							
	123	3	085	0300	04	419	34706	275	5					14	722							
			STO			538	3492	275		0005	648	0	348		790							
	123	5	085	0401	0.5	539	34917	275	8					14	791							

OBS

STD OBS

STD

STD

STD

STD

STD

STD

T0603

REFERENCE			MARSDEN	STATION TO	MF	DRIGINAT	OR'S	DEPTH	MAX.		WAVE	WEA-	CLOUD	T		1000	
SHIP LATITU	IDE LON	IGHTUDE PARTIE	SQUARE	(GMT)	YEAR		TION	TO BDTTOM	DEPTH		ERVATIONS	THER	CODES	1		UMBER	
CODE ND. CODE	1/10	1/10 E	10* 1. /	MD DAY HE	1/10	ND. NU	MBER	BUTTOM	S'MPL'S	OIR.	HGT PER S	-	TIPE AM	1	_	-	
318016 EV 4414	+5N 04	807 W	149 48	05 24 1	38 1967	998	6	3475	11	33	2 3	X 2	6 8			0070	
			WAT	ER W	IND BAR			NO.	SPEC	IAL							
			COLOR	TRANS. DIR.	OR (mb		WET COD	OBS. DEPTHS	OBSERV	ATIONS							
				32	SO9 29		044 6	12									
				1 26	307   27		1 - 0 -	4			1					r	7
MESSENGR CAST	CARD TYPE	DEPTH (m)	1 ℃	s */	SIGMA-T	SPECIFIC VOLUME ANOMALY-X107	UIN. W		DOCITY	0 2 ml/l	PO_a=P µg + 01/I	IOTAL-P	NO2~N µg - al/l	NO3-N yg - ai/l	SI D4~Si NB + al/l	pН	Ċ
HR 1/10 1	ITE						X 10 <sup>3</sup>	-	-		+		-	-			+
						1		1				ļ			l	ı	1
	STD	0000	0354	3291	2619	0018336	0000		621								
138	OBS	0000	0354	32909	2619				621								
	STD	0010	0354	3309	2634	0016980			625								
	STO	0020	0355	3321	2643	0016085	0034		629								
138	085	0024	0355	33237	2645	001/7/3	205		630								
	STD	0030	0211	3323	2657	0014762			568 463								
	STD	0050	-0029	3321	2669	0013557	0078		463								
138	OBS	0050	-0029	33205	2669				563								
138	085	0074	0174	33527	2683	0012234	0110		563								
	STD	0075	0174	3353 33688	2684 2696	0012234	0.110		569								
138	085	0099	0173 0179	3370	2697	0010989	0139		572								
	STO	0100	0305	3402	2712	0009600	-		635								
	STD	0125		34245	2722	0009000	010		679								
138	085	0148 0150	0390 0394	34249	2723	0008658	018		681								
120	STO OBS	T0197	0474	34539	2736	000000	010		726								
138	STD	0200	0479	3456	2737	0007363	022		729								
	STO	0250	0537	3477	2747	0006526			763								
138	085	0294	0544	34870	2754				775								
150	STO	0300	0534	3486	2755	0005882	029	4 14	772								
138	OBS	T0387	0424	34806	2763			14	740								
170	STD	0400	0428	3482	2763	0005064	034	B 14	744								
	STD	0500	0450	3491	2768	0004748	039	7 14	771								
138	085	T0577	0455	34947	2771			14	786								
130	510	0600	0450	3495	2771	0004579	044		788								
	STO	0700	0430	3495	2773	0004463	048		1796								
138	085	T0773	0417	34944	2775				803								
2 - 0	STD	0800	0413	3494	2775	0004396			805								
	STD	0900	0399	3494	2776	0004325			816								
	STD	1000	0387	3494	2777	0004273	062		828								
138	085	1074	0381	34935	2778			1 4	838								

											. т			DRIGINA	TOP'S	-т	DEPTH	MAX.		w	VE.	T	WEA-	CLOUD			NODC	1
REFERENCE	SHIP	LATITUI	SE	LONG	SITUDE	DRIFT	M A R S		STAT	GMT	IME	YEAR	CRUISE		TATION	$\neg$	10	OF			ATION		THER	CODES		- 1	STATION	
CODE NO.	CODE	•	1/10		1/10	ō ž	10°	1.	MO D	AY H	IR.1/10		NO.	N	UMBER		801108	S'MPL'	S DIR	. HG	TPER	SEA		TYPE A AA				1
31801	4 EV	4412	-	047	59 W	П	149	47	05	24	159 1	967		99	87		3749	05	34	4 2	2		X 2	6 8	İ	1	0071	.1
( ) 1001	o cv i	7712	,, ,	٠.,	, "	1	- 1	WA		, v	ONIN	BARC		AIR TEA	AP. °C	vis.	NO,	SPE	CIAL									
								COLOR	IRANS.	OIR.	SPEED	METE	R	DRY UL9	WET	CODE	OBS. DEPTH	DBSER	NOIT AV	s								
								CODE	lm)		FORCE	(mbs	-	-	_			-	_	-								
										36	\$16	28	4   0	50	044	6	10	L ,		┵		_						
	MESSENGR	CAST	CAF	RD.	DEPTH	_,	١,	٣	١,	٠/	SIGN	I-A		c volu	35 I D	N. M		DUND	02 m		PO4-P		TA L - P	NΘ <sub>2</sub> =N νg - σl/1	NO3-N µg = at/l	SLO4-		ć
	HR 1/10	NO.	TY		DEFIN	,m j	'	•	1	•••			ANGA	ALY-XI		X 103	- 1	LUCIN		-		1	- 0.7.		pg - a	-		-11
	111. 1710	+				_					1						- 1								1			11
	1	1 !	۱	то	000	0	' 1	374	35	41	26	58	00	1468	7 (	0000		5038										
	159	9	08		000		1	374	35	410	26	58						5038										
	• •			TD	001	0	1	375	35		26		00	1473	8	0015		5040										
	15	9	08		001			376		410			0.0	1.53		0029		5042										
				TD	002			375	35		26			1453 1361	-	0043		5043										
				TD	003			367	35		26		OU.	1001	<i>&gt;</i> (	1043		5042										
	159	9	08		003			362		565			00	1282	F (	0070		5011										
				ΤO	005			267	35		26		00.	1202	,	,,,,		5002										
	15	9	08		005			1241		356	26 26		00	1257	1 1	0102		5003										
				TO	007			1234		36 362			00	1631	1 '	,,,,,,		5003										
	15	9	06		007			1234 1226		34	26		00	1262	7	0133		5004										
	15	0	OE	STD	011			1215		330			•					5003										
	15	9		STD	012			1201		32		85	00	1237	15	0164	4 1	5000										
				STD	015			1167		30	26	90	00	1196	2	019!	-	4992										
	15	9	O E		015			1161	35	298	3 26	91						4990										
		-	9	STO	020	0		1091		26		01	00	1102	21	025.	2 1	4973										
	15	9	0.6	35	023				-	169						0.30	o 1	4049										
				STD	025			1006		04		99		1129		0301 0361		4948 4917										
				510	030		-	0911		174		92	00	1205	0	اورن	0 1	7711										
	15	9	06		031			0691	-	+678 •76		26	00	0884	. 3	047	1 1	4849										
		_		STD	040			0671 0479		831		59	50	000-		•	_	4779										
	15	9	01	35	048	5 3		0419	. ,-	,0,		,,					_											

CODE NO. CODE	1/10 1 0 N 0 4	NGTUDE 1/10 746 W DEPTH (m)	149 47  WA1 COLOR CODE	TRANS. DIR.  36	YEAR  1.77 196  VIND BA  SPEED ME FORCE (M	NO. N	TATION ID MBER  88  AP. 'C VIS.  WET COC BULB  067 7	NO. 085. DEPTHS	TH OBSE	VAVE RVATIONS HGT PER SE	CODE	TYPE AM	1	S	0072
318016 EV 44	STD CARD TYPE  STD OBS STD	746 W DEPTH (m)	149 47  WA1 COLOR CODE	05 24 1 TER W TRANS DIR. 36	VIND BA SPEED OR IME FORCE IM	7 994  RO- AIR TEA  TER DRY  BULB  B 1 072  SPECIFIC VOLUM	88  WP. 'C VIS.  WET COC  BULB  067   7	3804 1 NO. 085. DEPTHS OBSE	PL'S DIR.	3 2	-	6 8	1		
MESSENGE TIME OF N.S.	STD CARD TYPE  STD OBS STD	0000 0000	T 'C	TRANS. DIR.  36	SPEED ME OR ME FORCE (m	RO- TER DRY bs: BULB B 1 072	MP. 'C VIS.  WET COC BULB  067 7	NO. 085. DEPTHS	PECIAL		X2				0072
HR 1/10	STD OBS STD	0000	T 'C	TRANS. DIR. 36	SPEED ME OR ME FORCE (m	TER DRY BULB B 1 072	WET COC BULB COC	OBS. DEPTHS OBSE	PECIAL						
HR 1/10	STD OBS STD	0000	7 °C	36	S14 2	81 072 SPECIFIC VOLUM	WET COC BULB COC	1 1	RVATIONS		Γ				
HR 1/10	STD OBS STD	0000	1360	s ·/.,	\$14 2	SPECIFIC VOLUM	067 7 ME ₹ △ 0	11							
HR 1/10	STD OBS STD	0000	1360	s ·/.,		SPECIFIC VOLUM	ME Z A O	<del></del>	_						
HR 1/10	STD OBS STD	0000	1360		SIG MA -T		DYN. A			PO P					.1
177	OBS STD	0000					X 10 <sup>3</sup>	VELOCITY	O2 ml/I	PO4-P ug - 01/I	TOTAL-P 40 - 01/1	NO2=N  u0 - 01/1	NO3-N ug - o1/l	\$1 O4-\$i	
177	OBS STD	0000			1				+					-	├──
177	STD			3539	2659	001457	2 0000	15033	1					l	I
		0010	1360	35388	2659	002.57	_ 5500	15033							
	STD	0010	1355	3539	2660	001450	6 0015								
		0020	1350	3539	2661	001443									
	STD	0030	1346	3539	2662	001436									
	STD	0050	1336	3539	2664	001422	6 0072	15034							
177	OBS	0050	1336	35390	2664			15034							
177	OBS	0074	1358	35547	2672			15047							
	STD	0075	1355	3554	2672	001357	2 0107								
	STD	0100	1299	3549	2679	0012949	9 0140	15031							
177	085	0100	1299	35485	2679			15031							
	STO	0125	1258	3541	2681	001278	1 0172								
177	08\$	0149	1227	35380	2685			15013							
1.75	STD	0150	1227	3538	2685	0012479	0204								
177	085	0199	1191	35438	2696			15010							
	STO	0200	1188	3543	2696	0011519									
	STD	0250	1031	3527	2713	0010026									
177	STD OBS	0300 T0300	0896	3512	2724	0008999	0365								
111	STD	0400	0896 0691	35123	2724			14916							
177	OBS	0400	_	3488	2736	0007932	2 0450								
T 1 1	STD	0500	0691 0565	34878 3491	2736	000(1/	0500	14851							
	STD	0600	0481	3494	2755 2767	0006168									
177	OBS	0601	0480	34939	2767	000501	L 0576								
***	STD	0700	0459	3494	2770	0006456	2 26 25	14800							
	STO	0800	0438	3494	2772	0004850		14808							
177	OBS	T0802	0438	34941	2772	0004701	0673	14816							
	STO	0900	0424	3495	2774	0004582	0720	14816 14827							
	STO	1000	0415	3495	2775	0004582		14827							
	STD	1100	0410	3496	2776	0004532		14854							
177	OBS	1104	0410	34957	2776	300-322	. 0010	14855							

CTRY ID.	SHIP	LATITUE		LONGITUDE	DPIFT	MAR! SQU	ARE		TION IG MT	}	YEAR			STAT	ION		DEPTH TO BOTTOA	DE	) F	OBS	WAVE ERVATIONS	WEA- THER CODE	CODE	s		NODE STATION NUMBER	
1	-		1/10	7/10	μ-	10*	$\overline{}$	-		HR.1/10	<del></del>	+		NUN	BER	$\rightarrow$		3 m		DIR.	HGT PER SE	A 0000	ITTE AA				-
318016	EV	4616	N	04740 W		149			30	131	1967	1		89		(	0179	·   0	2	24	4  3	04	7 8	1		0073	İ
							WAI	ER	$\perp$	WIND	BAR		AIR TE	MP.		VIS.	NO.		SPECIAL								
							COLOR	TRAN (m)		SPEE OR FORG	74161		DRY		ET JLB	CODE	OBS. DEPTHS	085	ERVATIO								
									28	52	0 0	4	044	0	44	2	09										
	MESSENGA TIME HR 1/10	약 NO.	CAS		(m)	ī	°c		s •4.	SIC	MA-T		PECIFIC VOL		DYI	△ D N. M. 10 <sup>3</sup>		UNO OCITY	02	m!/I	PO4-P µg - ot/1	TOTAL-P ug • ot/I	NO2-N ug - at/1	NO3-N µg - ol/	SI O4-5 yg - al/		s c
			S	TD 000	Ω		169	3.2	274	2	521		00181	73	0.0	000	14	538									
	13	1	ОВ				169		741		621		00101		•	,,,,		538									
	• • •	•		TD 001			164		275		622		001809	96	0.0	18		537									
	13	1	ОВ				164		747		622							537									
				TD 002	0	Ó	143	32	277		625		001778	B 7	00	36		53(									
			S	TD 003	0	0	122	32	279	2	628		001748	B 2	00	)54	14	523	3								
	13		0В		0		122	32	793	3 2	628						14	523	3								
	13	1	08				032		911	2	646						14	456	5								
				TD 005			1056		295		650		001539	98	00	87	14	44	7								
	13	1	ОВ				062		296	_	651							445									
				TD 007			135		305		661		00143	55	0 1	124		419									
	13	1	08	-			137	_	305€	_	661							415									
				TO 010			100		322		573		001314	47	0.1	158		438									
	13	1	οв				095		3235		674							44]									
				TO 012			038		337		683		00122			190		473									
		_	_	TO 015			003		345		688		00117	79	04	220		495									
	13		ОВ				001		3458		688							496									
	13	1	ОВ	5 016	9	0	003	33	3472	2 20	589						14	501									

REFER CTRY CODE	IO. NO.	2HIP 3000	LATI	T U D E	/10	LON	, GITI	U D E	DRIFT	M A	NRS C	RE		IGM	TIM TI		YEAR	C	O RUISE NO.		TOR" ATIO JMBI	N	_	DEPTH TO BOTTOW	DE	AX. PTH OF PL'S	O8	SERV	A TION	WEA THEF COD	E	CLOUD CODES			S N	NODC IATION UMBE	2 8
311	3016	ΕV	46]	8	N	04	74	0 4	4	14	9	67	05	30	13	38	196	7		999	0			174	(	)2	24	5	3	04		7 8	ļ		- 1	007	4
,		, , ,										WA:	<u> </u>	5. 0	IŘ,	SPEED DR FORC	1 77.	ΓER	0	RY ILB	P. °C WE BUL	T C	11\$. 300	NO. OBS. DEPTHS	1 000	SPEC	IAL ATIONS										
											Γ			2	8	520	0	14	0	50	04	4 4		07				L		 							
		MESSENGE TIME HR 1/10	약 NO	iT ),	CAL			EPTH	(m)		ī	°c		• /.		SIG	MA-I		SPECIFIC			¥ ∆ DYN. x 1	Μ.		OCIT		0 2 ml/	4	PO4-P	 OTAL- ug = ot/		NO2=N ug - ol/l	NO3-1		04-Si g - o1/I	pt	н
																		-			.	001		1	•53	,		1			1	l		1			
					_	TD		000			-	67		275 274			522		001	911:	,	000	30		+53												
		13	8		ОВ	5 T D		00				167 188		276			528		001	753	5	00	18		50												
					_	TD		00				25	-	78			33		001			00			447												
		13	ρ		08			00.				004		278			534			-				14	446	8											
			O			TD		00				18	-	282			538		001	655	3	00	52	14	445	9											
						TD		00			-00	73	3.	292	?	26	548		001	557	2	00	84		+43												
		13	8		ΟВ	S		00	50		-00	73	37	29]	9	26	548								443												
		13	8		ΟВ	S		00				104	-	307	-		661				_	- 2			443	-											
						TD		00				103		306			562		001	422	3	01.	2 1		443												
		13	8		08	-		00				74		323			674		001	300	_	01	5.6		445 445												
					_	10		01				270		324 338			574 583		001			01			447												
			_		_	TD		01				028 007	-	34:			587		001	c c U	•	01	0 1		449												
		13	В		08	10		01				306		344			587		001	185	5	02	17		449												
		13	8		08			01				003		343			587					-		14	449	7											

REFERENCE SHIP LATITE	DE LON	NOITUDE NOITUDE	MARSDEN SOUARE	STATION TO	YEAR	ORIGINATO CRUISE STAT	ION	OEPTH DEPT OF S'MPL	OBSE	WAVE RVATIONS HGT PER SE	WEA- THER CODE	CLOUD CODES		ST	ODC ATION UMBER
318016 EV 4618	N 04	738 W	149 67 0	5 30 1	45 1967	9991	-	0183 02	24	5   3	X4	7 8		0	0075
	'		WAT	ER V	VIND BAR	AIR TEMP.	*C vis	NO. CP	ECIAL						
			COLOR		SPEED METE	R DRY W	ET CODE		VATIONS						
			CODE	tm1	FORCE [MBI		_+	<del></del>							
				28	520 99	0 050 0	44 6	07							
MESSENGR CAST TIME OF NO.	CARD TYPE	QEPTH (m)	1 °C	s ·4.	51GMA-T	SPECIFIC VOLUME ANDMALY-X107	₹ △ D DYN. M x 10 <sup>3</sup>	. AFFOCITA 200ND	O 2 ml/l	PO4-P µg - 01/I	TOTAL=P pg = ol/l	NO2-N µg = at/1	NO3=N μg - σ1/l	\$1.04-\$1 ug = 01/1	pН
		_										Ì	ļ		
1	STD	0000	'	3273				'							
145	OBS	0000	01720	32730	26200										
	SID	0010		3276											
	SID	0020		3280											
145	oBs	0025	0037	32830	2636			14484							
	STD	0030	-0014	3287	2642	0016188		14462							
	STD	0050	-0144	3301	2658	0014655		14406							
145	OBS	0051	-0148	33020	2659			14405							
	STD	0075	-0145	3312	2667	0013791		14412							
145	OBS	0076	-0144	33126	2667			14412							
	STD	0100	-0098	3326	2676	0012848		14440							
145	OBS	0102	-0094	33270	2677	0017054		14442							
	STD	0125	-0062	3338	2685	0012054		14493							
	STO	0150	-0006 0000	3345 33455	2688 2688	0011764		14497							
145	OBS OBS	T0152 0168	0050	33478	2687			14522							
145	005	0100	0000	22410	2001			. + )							

REFERENCE CTRY IO.	SHIP	LATITU		LONGITUO	TANGE I	SOI	SOEN	_	ION TI		YEAR		ATOR'	IN .	DEPTH TO SOTTOM	MAX. DEPTH OF	00	WAVE IT AV\$32	ONS	WEA- THER CODE	CODE	S	2.	NOOC ATION UMBER
140,	+		1/10		/10   -	10"	1,-	MO I	HYAC	R,1/10		NO.	4UM6	EK .		S'MPL"	S DIR.	H GT PE	R SEA		TYPE A	AT)		01110111
31801	s EV	4616	N I	04738	w	1149			30		967				201	02	24	5 2	1	X4	17/8	١ .	1	0076
							WA	_	٧	VINO	BAR		_	VIS.	NO.	SPE	CIAL							
							COLOR	TRANS.	OIR,	SPEED OR FORCE	MET (mb:		BUL	T CODE	OBS. DEPTHS	OBSERV	2 NOIT A							
								1	28		03	0 050	04	4 6	07									
	MESSENGI TIME HR 1/10	약 NO.	CAR TYP		H (m)		r *c	s	./	SIGM		SPECIFIC VOLU	ME	\$ △ 0 0YN. M. X 10 <sup>3</sup>	sou	ONU	O2 ml/	PO 4		1ΟΤΑ L - P υφ - σt/I	NO2-N ug - at/		\$1 O 4~\$1 pg = 01/1	ρН
																1								
			S1	rD 00	000		173	32	74	262	2.0	001823	8	0000	14	540								
	15	2	089		000		173	32	736	262						540								
			S1		10	(	058	32	80	263	3 3	001707	0	0018	14	491								
			S1	rD 00	20	-(	0032	32	36	264	-2	001619	4	0034	14	452								
	15	2	089	5 00	26	~(	074	32	900	264	7				14	434								
			S1		30		092	32		265	0	001543	4	0050	14	426								
			S1		50		149	33		266		001433	5	0080	14	405								
	15	2	083		)52		152		061	266						404								
			SI		75		137	33		266		001366	0	0115		416								
	15	2	089		78		132		151	266						419								
		_	SI		.00		0078	33		267		001261	4	0148		450								
	15	2	083		.04		0069		325	268	_					455								
			\$1	-	. 25		0022	33		268		001199		0178		481								
	3.5	-	\$1		.50		016	33		269		001141	8	0208		504								
	15		089				0022		524	269						508								
	15	۷	083	. 0.	.91	(	0040	33	525	270	10				14	524								

REFE	RENCE	T					_≅ MA	RSDEN	STA	TION	TIME			OF	RIGINATO	OR'S	Т	DEPTH	MAX.		WA	V E	-	WEA-	CLOU	n I		Τ.,	000
CODE	10. NO.	CODE	LATITU	- 1	LONGIT	UOE	50	UARE		GMT	1	YEAR	c	RUISE		TION	-	TO BOTTON	OEPTH OF	Ų .	BSER∨	'A TIO N		THER	COOE	s		STA	ATION
	NO.	+		1/10		1/10	_ 10·	1.	WO	DAY	HR.1/10		-	NO.	NU	MBER	$\rightarrow$	60110N	' S'MPL'S	DIR.	НG	T PER S	EA.	COOF	TYPE A	7.0		NU	JMBER
31	8016	5 EV	4612	N	0472	0 W	149	9 67	05	31	198	196	7		9993	3		0686	06	34	. 7	2		x 2	7 8			ا ر	0077
								WA	TER		WINO	8.4	RO-	AB	R TEMP.	°C	VIS.	NO,	C D C	CIAL	7								
								COLOR	TRANS	DIR		1 77	ETER	OR BUI		V E T U L B	CODE	OBS. OEPTHS	COSEDV		5								
									+	34	SZ:	-	78	+	-			09			+								
									+	1 34	32	+ 1 0	70	02	0   0		6	109	1		1		_			_	7	<u> </u>	
		MESSENG TIME HR 1/10	CAST ND.	CARE		EPTH (m	1)	1 ℃	s	•/	\$10	MA-T		PECIFIC Y		DY	∆ N, M. 10 <sup>3</sup>		OCITY	O 2 ml/	/ 1	PO4-P 9 - 01/1		A L -P	NO2-N ug - at/l			4-Si - at/I	ρН
									7												7			T					
		•		ST	' ס	0000		0102	32	82	. 2	531	. (	0017	175	00	000	14	509		,		'	,		1	'	'	
		19	8	085		0000		0102	32	818	2	531						14	509										
				ST		0010		0093	32		2	541	-	0016	269	00	17	14	508										
				ST		0020		0084	33			548	-	0015	607	0.0	33	14	507										
		19	8	085		0025		0079		049		551						14	506										
				ST		0030		0051	33			554		0015	-		48		494										
			_	ST		0050		0029	33			665	(	0013	978	00	77		462										
		19	8	085		0051		0032		159	_	666							461										
		19	0	ST 08s		0075		0053	33			81	(	0012	416	0.1	10		458										
		19	0	_		0077		0055		358	_	583			<b></b> 0	- \			457										
		19	0	ST 08s		0100		0040	33			599	1	0010	792	0.1	139		508										
		19	0	ST		0125		0124	33	641		700 716		0009	17/	٥.	64		514										
				ST		0150		0196	34			730		0007		-	185		554 594										
				ST		0200		3306	34			750		0006			220		655										
		19	8	085		0204		313	-	520		751	,	0000	041	02	- 20		659										
			•	ST		0250		354	34			758		0005	418	0.	49		686										
				ST		0300		388	34			763		0004			75		710										
		19	8	085		0306		391		766		763	,		- 0 -	-			712										
			-	ST		0400		0417	34			767	(	0004	718	03	323		740										
		19	8	085	5 T	0407	,	0418	34	852		767				-			741										
				ST	Q	0500	) (	0410	34			769	(	0004	602	03	70		753										
				ST	O	0600	) (	0401	34	89	2	772		0004		04	15		766										
		19	8	085	5 T	0642	. (	397	34	893	2	773							772										

CE D.	SHIP	LATITU	DE		GITUDE	DRUFT	MARS SQU	ARE		ON TO		YEAR	CRUI		OTAT	ION	DEPTH TO 80110A	MAX. DEPTH OF S'MPL'	0	BSER	VATI	DNS SEA	17	EA-	CLO	DES			STATIO NUM	OΝ
10.	COOL	•	1/10		1/10	=	10*	1.	MOL	AY H	R,1/10		NC	·   —	NUM	BEK	-	12 WAL	_	-+	_	_								
016	EV	4614	N	04	716 W		149					1967	1_	99 AIR TE	94		0612	06	3	3   3	12	1	( )	(1	6	3		- 1	00	78
							1	WA	TER		SPEED	8AR			_	VIS		SPE OBSERY	CIAL											
								COLOR	TRANS.	DIR.	FORCE	(mb		BUL8		LB COD	DEPTH	OBSEK	AHON	,										
										32	519	10	)5	028	0	22 7	09		_	1			_					_		_
	MESSENG TIME HR 1/10	NO.		R D PE	OEPTH	(m)	T	*c	s	•4.	SIGA	NA-T	SPEC	IFIC VOLI	JME 107	∑ ∆ C DYN. 7 x 10 <sup>3</sup>	A. 100	POCITY	02 m	1/1	PO 4		TOTA PB -		NO <sub>2</sub>		NO3-N P8 - 01/1	\$1 O 4 - 0		рН
												_												l		1			ı	
	•			STD	000	0	0	114	32		26		0.0	1738	31	000		4514												
	20	8	0.6	35	000	٥		114		800	26							4514												
				STD	001	0		083	32		26			1636		001		4503												
				510	002			051	32		26		00	1550	33	003		4492												
	20	8	01	35	002	4		039		021	26							4487 4480												
				STO	003			020	33			55	_	0149		004	_	448U 4457												
				STD	005			040	33			65	01	140	10	007		4457												
	20		-	35	005			040		139		65						4431												
	20	8		35	007			106		221		74	0	0130	7 /.	011		4433												
				STO	007			103	33			74		0119		014	-	4475												
				STO	010			0028		42		8 <b>6</b> 86	0	0117	20	014		4475												
	20	8 (8		BS	010			0028		417 73		07	0	0100	1 0	017		4526												
				STO	012			0065	-	ÜΟ		23	_	0184		019		4570												
				STO	015			1146	_	416		47	•	000.	_	0 - /		4638												
	20	8		BS	1019			270	_	42		47	0	0063	34	023		4639												
				STD	020			271	_	61		56		0055		026	-	4677												
				STD	025			)336 )382		75		63		0050		028	-	4707												
				STO				382		748		63	0	0000		5-0		4707												
	2 (	98		BS	030			)		87	_	69	0	0045	47	033		4739												
	٦.			STO	1040			0410		875	_	69	•			3-3		4740												
	2 (	18		BS	050			0412		89		70	0	0045	0.2	037	9 1	4755												
		0.8		STD BS	T 05			0412 0409	-	893		771	Ü		-	•		4766												

				≝ MARS	DEN	STATI	ON TIM	A.E.		ORIG	NATO	R'S	DEPT				VA VE	2140	WEA		CODES			NODC TATION
EFERENCE SHIP	LATITUI	DE LOI	NGITUDE E	Sau	ARE	10	SMTI	"   Y	EAR	CRUISE	STATI		10 80110	01	- 1				COD	- 1	TPE A MT			UMBER
TEY ID. CODE		1/10	1/10	Z -10.	11 /	MO D	AY HR	.1/10	_	NO.	NUM	868	80110	S'MP	r,2 Di		IGT PE	_		-	_		_	
			724 W	149	67	05 3	31 2	19 1	967	9	995		042	21 0	4 3	<u> </u>	3   2	1	X1	.	7 7		ı	0079
31/8016 EV	4614	N   04	1124 W	1147	WAT			ND	BARC	A IR	EMP.	°C VIS	NO		PECIAL	1								
					COLDR	TRANS.	DIR.	SPEED OR	METE	R DRY		ET COD	DEPT	S. Lones	RVATIO	NS								
					CODE	(ক)	UIA.	FORCE	(mbs		- 1	118	-	-1-										
							28	S10	12	2 028	0	22 7	0.6	5 <u> </u>	_					_	-		_	
MESSEN	GR CAST	CARD		Τ.	*c	Ι.	•/	SIGM	A – T	SPECIFIC VO	LUME	₹ ∆ C	À	SOUNO	02	m1/I	PO a	- 1	101At-		102-N g = 01/1	NO3~N vg = al/l	\$1 O4=5 µg = a1/	
TIME	약 NO.	TYPE	DEPTH Im	'   '	C	,		310 m	^-'	ANOMALY-	-110'	x 10 <sup>3</sup>		VELOCITY	<u> </u>		₽Q •	61/1	- pg - d//			pg - an i	-	
HR 1/	10					1							7				l	ļ					1	1
ļ.	1		0000	1	101	32	85	263	14	00169	33	0000	່່າ	14509										
_		STO	0000		101		849	263		004-		-		14509										
2	19	OBS	0010		0091	32		263		00166	39	001	7	14507	'									
		STD STD	0020		0077	32		264		00163	332	003	3	14502	:									
		510	0030		0059	32		264		00160	005	004	9	14496	)									
2	10	085	0030		0020		009	26						14482										
2	19	STD			0010		02	26		0015	145	008	1	14478	}									
3	19	085	0071		0054		123	266						14454	•									
2	19	STD		-	0063		13	26	65	0013	983	011	7	14450	)									
_	1.0	085	0096		0109		216	26						1443	3									
2	19	510			0116		28	26		0012	635	015	0	1443	2									
		STD			0158		64	27	09	0009	735	017		1442										
		STO			0197		196	27	36	0007	163	019		1441										
-	19	085	0192		0257	34	361	27	69					1439										
2	19	STD		•	0269	34	40	27	73	0003	600	042		1439										
		STO			0332	34	+60	27	90	0001	933	024		1437										
	19	085	0289	-	0369	34	722	27	99					1436										
	17	STO			0377		+75	28	02	0000	693	0 4 4	7	1436										
	219	085	038	-	0412	34	873	28	12					1436										
4	. 17	STO	-		0412		+87		12	-0000	391	024	8	1436										
	219	OBS	040		0412	34	4875	28	12					1436	3									
•	- A 7	~~~																						

FERENCE V ID.	SHIP	LATITU	1/10	LON	GITUDE	D =		ARE		(GMT)		YEAR	CRU		ATOR'S		DEPTH TO BOTTO	DEPTH	OB	WAV SERVA	TIONS	TH	ne L	CLOUI	s		NOI STAT	NON
2002	1 5					_	10"	1.			HR,1/10		+-	-				2.W LF.	S DIR	HGT	ER SE	^		TYPE AA	AT .		14070	· U L K
1 801	6 EV	4609	9 N	04	724	W	149			-		1967	1	99			0786	5 06	32	131	2	X	1	3   3	.		0.0	080
								WA	T	<del>1 -</del>	SPEED	BAR		AIR TE	_	- vis.		SPE	CIAL									
								COLOR	TRANS.	DIR.	OR	(mbs		DRY BULB	BULE	COD	DEPTH	S DBSERY	/A TION S									
										26	510	13	2			7	09			İ								
	MESSENG TIME HR 1/1	T NO.	CAI		DEPTH	(m)	Т	°C	s	٠/	SIGN	AA-T		IFIC VOLU		YN. M		DUND	0 <sub>2</sub> ml/		4-P	TOTAL		NO2-N	NO3~N yg ~ al/			ρН
				Ī																			+-	_		1	Ť	_
			S	TD	00	00	0	118	32	88	26	35	0.0	1683	4	0000	14	4517 <sup>°</sup>		'	'				•	1	'	
	23	1	0 B		00			118		875							14	+517										
				TD	00			120	32		26		0.0	1667	2	017	14	+520										
			_	TD	00			122	32		26		0.0	1651	0 (	0 3 3	14	+523										
	23	31	0 B		00			123		930	26							+524										
			_	TD	00			119	33		26			1581		050		524										
	2.0			ΤD	00			069	33		26		0.0	1396	2 (	079	_	+508										
	23		OB		00			069		215	266							+508										
	2.2	1	08		00			069		323	26							4450										
				TD TD	00			065 034	33		268			1244		112		+452										
	23	1	OB		01		_	034	33	61 614	26°		00	1072	9 (	141		+506										
	٤.	-		3 T0	01			133	33		27		0.0	0908	2	166		+506										
			_	TD	01			216	34		27							+559										
	23	1	ОВ		01			329		515	27		00	0780	7	187		+603 +664										
		-		TD	02			331	34		275		0.0	0613	0	1222		1666										
				TO	02			358	34		27		_	0545	-	251		+687										
	23	1	ОВ		02			377		740	276		00	0747	0 1	12 ) 1		705										
		-		TD	03			377	34	-	276		0.0	0501	a (	277		705										
				T D	04			392	34		276			0461		325		729										
	23	1	ОВ		04			392		B 30	276		00	0 701	- (	223		729										
		-		T D	05			394	34		27		0.0	0434	3 (	370		747										
				TD	06			397	34		27			0431		413		765										
	23	1	OB.		06			398		900	27			1	- '			773										

REFERENCE SHIP LATITUDE CODE NO. CODE 1/2		10° 1° 149 67	TRANS. DIR. SP	1967	O- AIR TEMP. ER DRY Y L) BULB B	ION IBER	NO.	PL'S DIR.	WAVE RVATIONS HGT PER SEA 2 4	WEA- THER CODE	CLOUD CODES TYPE AW		51 N	NODC FATION UMBER 0081
	CARD DEPTH (m)	T °C		IGMA-T	SPECIFIC VOLUME ANOMALY-X107	₹ △ D DYN. M x 10 <sup>3</sup>	NEFOCITA 200 ND	02 ml/l		OTAL—P	ND2~N ug - 01/l	NO3-N yg - at/l	51 D4-51 pg - 01/3	рН
	STD 0000 BBS 0000 STD 0010 STD 0020 BBS 0025 STD 0030	0186 0186 0166 0147 0137 0078	32709 3271 3273 32755	2617 2617 2619 2622 2624 2632	0018530 0018393 0018115 0017098	0000 0018 0037	14545 14538 14531 14528	5 3 1 3	!					
	STD 0050 BS 0051 STD 0075	-0091 -0097 -0157	3299 32997 3307	2654 2655 2663	0014966	0086	14431 14429 14405	l ) 5						
	08S 0076 STD 0100 08S 0102 STD 0125 STD 0150 08S 0157	-0158 -0122 -0119 -0076 -0019	3318 33193 3331	2663 2671 2672 2680 2687	0013381 0012534 0011853	0157 0190 0220		7 9 5						

TRY 10.	SHIP	LATITUD		NGITUDE	DRIFT	MARSOE SQUARE	E	10	ON TIM		YEAR	CRUIS NO.		ATOR'	N	1	10 10 110M	MAX. DEPTH OF S'MPL'S	1	WAVE SERVAT	nons	THE COI	R	LOUD ODES	_	\$	NODC FATION UMBER
31801	+	4650	N 0.4	722 W	+ +						967		99	98		02	201	02	25	2 2	2	X	5	0			0082
2 1/0 0 1	. q . c v	4000	14 1 0 -	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	( )	• 7 (	WATE	_		IND	BARC	_	AIR TEA	MP. T		TN	10.		CIAL								
						cc	DLOR	TRANS.	DIR.	SPEED	METE	ER	DRY	WE		ver v	PTHS	OBSERV	ATIONS								
						C	ODE	(m)		FORCE	(mbs	*1	8UL6	801	-	-											
						ĺ			24	511	26	1	044	03	9 7	10	7										
	MESSENG		CARD									SPECIF	ic vorn	IME	₹ A t		sou	ND	O 2 m1/	PO	4-P	TOTAL	P NO	02-N	NO3-N	S1 O4S1	
	TIME	약 NO.	TYPE	DEPTH	(m)	1 7	0	,	٠/	SIGN	1A-I	ANO	MALY-X1	107	y 10		VELO	CITY	02	, אמ	• 01/1	اه - وير	/I V8	- al/l	yg = al/l	µg • α1/1	
	HR 1/10				_			-		1-			_	-		1											
						0.3		32		26	00	0.0	1933	. 0	000	Λ	14	556		1			,		,		
	•	,	STD	000		02 02			628 628	26	-	00	1900	, ,	000	•		556									
	0.0	6	OBS STD	001		01	_	32		26		0.0	1717	75	001	8		540									
			STD	002		01		33.		26		00	1545	8	003	5	14	525									
	0.0	6	OBS	002		01			128	26							14	518									
		•	STD	002		00	93	33	15	26	59	00	1459	91	005			514									
			STD	009	50	00	47	33	27	26	71	00	1342	23	007	8	14	499									
	0.0	6	obs	009	51	-00	930		282		78Q																
			STD	00	75	-00		33		26		00	1122	27	010	8		480									
	0.0	6	OBS	00	_	-00			532	26								479									
			STO	010		01		33		27		0.0	0931	1 3	013	4		544									
	0.0	6	OBS	01			20		880	27					0)6			549									
			STD	01.		01		34			32		0772		015			590 625									
			STD	01			60	34		27		00	0651	ΙΙ	017	٥		632									
	00	-	OBS	TO19			72	-	420	27								661									
	0.0	6	OBS	019	95	03	19	34	606	27	<b>D</b> /						14	001									

					MARSDEN	STAT	ION TI	ME		ORIGINA	TOR'S		DEPTH	MAX.	OBS	WAVE ERVATIONS	WEA-	CLOUD	ĺ	5.1	ATION
REFERENCE	SHIP	LATITUO	IE L	ONGITUDE		1	G M TI	,	EAR		ATION UMBE		01 0110M	OF S'MPL'	1	HGT PER SE	CODE	TYPE A MIT		NU	) A BER
CTRY 10.	CODE		1/10	1/10 2	10" 1"	MO	HI YAC	R_1/10		NO. N	UMBE	-		1	_			0			0083
	-			4706 W	149 6	06	05 lo	20 1	967	999			850	0.8	1_25	3 2 1	) X0		1	,	,005
318016	y EV	4650	M 1 C	74700 11		ATER	T v	VIND	BARC	AIR TEA		vis.	NO. 08\$-	SPE	CIAL						
					COL	OR TRANS	DIR	SPEED OR FORCE	METE (mbs	R DRY	8ULS	-11	DEPTHS	OBSERY	ZADONS						
							24	506	26	1 044	03		11	١		1	TOTAL-9	NO2-N	NO3-N	SI O SI	
	MESSENGR TIME	of NO.	CARD	DEPTH (m)	1 'C	3	٠/.,	SIGM	7-A	SPECIFIC VOLU	ME 07	₹ △ D DYN. M. x 10 <sup>3</sup>		OCITY	Q2 ml/	PO4-P µg - a1/I	yg - 01/1	μg - α1/i	yg = at/l	yg = of/1	рН
	HR 1/10	-											1,			1 1		i		1	
		1 1	ST	0000	026		99	26:		001698	6	0000		+583 +583							
	0.2	0	OBS		026		988					0017		4562							
	0.2	•	ST		021		305	26		001611		0017	_	4548							
			51		017	_	314	26		001516	1	0032		4544							
	0.2	0	OBS		016		3176			001416	4	0047	- 1	4545							
			ST		015	-	326	26		001416	0	0047		4548							
	0.2	0	OBS		015		3488			001232	, ,	0073		4545							
			ST				349	26 27		001232		00,5		4511							
	0.2	0	OBS		00 9		3662	27		00103	7.2	0102	1	4514							
			ST			-	368 3858			00100		-		4545							
	0.2	20	QB3					27		00092	13	0126	5 1	4548							
			S.				388 413	27		00076		014		4575							
			S.			-	413 431	_	44	000.0	-	-	1	4600							
	0.2	20	QB:				432		44	00065	61	016	5 1	4603							
				TD 0150			451	_	52					4651							
	0 2	20	QB:				452		52	00058	41	019		4652							
				TD 0200			464		159	00052		022		4677							
				TD 0250 S T0298		-	472	_	63					4697							
	0.	20	ОВ	•			472	_	763	00049	73	025		469							
							482	_	768					4721							
	0	20	QВ	-			482	_	768	00046	30	049	-	14728							
			_				486		769	00045	98	034		1475							
					-		489		771					476							
	0	20	60	•			490		771	00044	98	0 2 8	-	1477							
					-		3490	_	772	00045	18	043		1478							
							3489		773					1479	0						
	0	20	QΕ	S T075	. 0.		,	-													

Signature   Color																			
	SHIP LATE	tune lo	MOITHER S	MARSDEN	STATION TI									, w	EA-				NOOC
31  8016   EV   4650 N   04651 W   149   66   06   05   033   1967   10000   1207   11   25   3   2   X0   0   0084			1/10			!	CKUISE				OF				ne I				
WASTE   WAST	318016 EV 465						-		_	1207	1			25.4	-		1	_	
COLOR   Nature   Description	1 2 1 2 2 2 2 3 2 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		.051 #1 [	1		/IND					11	_22	3 2	) X	0	0	1		0084
CODI   Ima   With   Fourth   State						SPEED M	4×0-		vis.	J OBS.									
MILLINGS   CAST   CAST   Milling   CAST   Milling   CAST   CAST   Milling   Milling   CAST   Milling   CAST   Milling				CODE	lm1 DIK	OR I.				DEPTHS	OBSEKVA	HONS							
STO					24	504 2	261 03	39 (	33 6	12									
STD   0000   0255   3323   2653   0015106   0000   14582   1		CARD					SPECIFIC	VOLUME	₹ Δ D	5011	ND.	_ '	80. 8	T	Τ.				_
STO   0000   0255   3323   2653   0015106   0000   14582   14562   STD   0010   0221   3324   2657   0014761   0015   14562   STD   0020   0200   3325   2659   0014520   0030   14562   0033   085   0025   0194   33257   2660   14560   STD   0030   0198   3338   2670   0013529   0044   14564   14564   0015   14560   0015   0016		TYPE	OEPIH (m)	, ' '	3 7	SIG MA -T	ANOMA	LY-X107	DYN. M x 103	· VELO		02 ml/l							ρН
033		1	-		-	1			<del></del>	+	-		<del> </del>	1	+	-	-	-	
033		5.10	0000	0255	2222	2452	0015	100	1 0000		!			1	J	ı		ı	ŀ
STD   O010   O221   3324   2657   O014761   O015   14569	033						0012	100	0000	_									
STD   0020   0200   3325   2659   0014520   0030   14562   14564   1							0014	761	0015										
033																			
STD	033	OBS	0025	0194	33257				0-20										
033		STD	0030	0198	3338	2670	0013	529	0044										
STD 0075 0364 3431 2730 0007924 0090 14656 033 0BS 0076 0366 34323 27330 14658  STD 0100 0311 3433 2736 0007325 0109 14638 STD 0125 0293 3437 2736 14637  STD 0125 0293 3437 2741 0006854 0127 14635 STD 0150 0277 3442 2747 0006355 0143 14633 033 0BS 0161 0270 34453 2750 14632 STD 0200 0311 3458 2756 0005492 0173 14658 033 0BS 0204 0315 34592 2757 146661 STD 0250 0354 3469 2761 0005118 0199 14686 STD 0300 0387 3478 2765 0004824 0224 14710 033 0BS 10308 0391 34788 2765 0004824 0224 14710 033 0BS 0406 0419 34861 2768 STD 0500 0418 3486 2768 0004655 0272 14740 033 0BS 0406 0419 34861 2768 STD 0500 0414 3487 2769 0004616 0318 14755 STD 0600 0409 3489 2771 0004560 0364 14770 033 0BS 10605 0409 3489 2771 0004560 0364 14770 033 0BS 10605 0409 3489 2772 0004450 0409 14782 STD 0700 0388 3489 2771 0004560 0364 14794 STD 0800 0386 3489 2772 0004455 0459 14794 STD 0900 0377 3490 2775 0004361 0498 14806 STD 1000 0377 3490 2775 0004361 0498 14806 STD 1100 0365 3491 2777 0004317 0985 14835							0010	165	0067	145	581								
033	033																		
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STD   O200   O311   3458   2756   O005492   O173   14658     O33   OBS   O204   O315   34592   2757	033	085		0270			000-		0 2	_									
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022 000 1101									0542	148	320								
000 1104 0365 34911 2777 14836	0.32						0004	317	0585										
	و د u	082	1104	0365	34911	2777				148	136								

REFERENCE CTRY ID. ODE NO.	SHIP	LATITU	IDE 1/10	LON	GITUBE	DAIFT	MAR: SOU	OEN ARE		ION TIL		YEAR	CRUISE NO.		DR'S TION MBER	<b>⊤</b> 1	PTH TO TOM	MAX. DEPTH OF S'MPL'S	OBSE	WAVE RVATION		WEA- THER CODE	CLOUE CODE:	i		NOOC STATION NUMBER
318016	6 EV	4650		04	637 V	-	149	1		-		967		1000	_	0.8	$\rightarrow$	0.8	-	3 2	36.4	×ο	0	1	_	0085
						, ,	_	WA			IND	BARO	-   A	IR TEMP.	۲ .	- N				- 1- 1		,		•	'	000.
								COLOR	TRANS.	DIR.	SPEED OR FORCE	METER (mbs)	:   D		VET CO	rd O	BS. THS	SPEC OBSERV								
										00	500	25	7 0	56 (	50 6	1	2									
	MESSENGR TIME HR 1/10	CAST NO.		P O	DEPTH	(m)	ī	٣	s	٠4.	SIG M	A-T	SPECIFIC	VOLUME	₹ Δ 0γn. x 10	M.	VELO		O 2 ml/l	PO4-P		01AL-P ug = a1/1	NO2-N µg - 01/1	NO3-N pg - at/l	\$1 O4-	
		İ	,	TD	000	00	0	479	33	36	   264	.2	0016	5188	000	0	146	.80			İ	İ				ł
	049	)	0.6		000			479		355	264				000		146									
				ΤD	001			467	33		264		0015	5960	001		146									
			5	TO	002	20	0	455	334	+5	265		0015		003		146									
	049	)	0.6	3S	002	25	0	449	33	508	265	7					146	73								
				TD	003	30		388	33	53	267	3	001	3235	004	6	146	50								
	049	7	0.6		004			252		996	271						146	00								
				OT	005			254	34		271		000	9199	006		146									
	049	•	06	_	00.			292		244	273						146									
				TD	00			295	34.		273		000	7671	008		146									
	0 49	}	0.6	-	009			323	-	416	274			<b>-</b>	- 1 -		146									
				OTO	010			324	34		274			6667	010		146									
	0.4			TD	012			336	34		274		0000	6195	012	3	146	55								
	049	,	0.6		014			3330			275		0001		010											
	049	,	0.8	TD	019			347 370	34	700	275 276		000	5718	013		146									
	043	,		TD	020			373	34		276		0001	5114	016		146									
				TD	025			404	34		276			4955	019		147									
	049	,	08		T029		_	424		328	276		000.	4900	019		147									
	04,			TD	030			427	34		276		0004	4802	021		147									
	049	)	OE		038			450	_	909	276		000	<b>4002</b>	021		147									
	0 - 7			TO	040			446	34		276		0004	4610	026		147									
				TD	050			417	34		277			4430	030		147									
	049	)	0.6		T057			402		397	277		550		550		147									
				TD	060			400	34		277		0004	4358	035		147									
				TO	070	00		393	34		277			4313	039		147									
	049	)	06	s	T07	72	0	387	34	913	277	5					147	-								
			9	TD	080	0	0	384	34	8 8	277		0004	4502	043		147									
74	049	•	OB	Is	080	)5	0	384	34	372	277	2					147	93								

EREP		SHIP	LATITUDI		LONGITUDE	DRIFT	MAR	RSOEN	AT2	TION T	ME	YEA	R	RUISE		ATOR'S		DEPTH TO	OEPTH OF		WAV SERVA		11-	EA-	CODE		S	NODC
	10. NO.	COOE		/10	1710	2 3	10*	1.	MO	DAY	R_1/10			NO.		UMBER	18	MOTTOM	S'MPL	S DIR	HGT	PER SE	A CC	DE	TYPL AN	Т	_   N	UMBER
18	016	EV		_	04623 W	1-1	14	9 66	06			19	67		10	002		0384	04	25	3	2	×	0	l lo			0086
1,0	0 - 4					' '	-	,	TER	T '	VIND	Τ.	BARO-	T	IR TEA	AP. °C		NO.		ECIAL	]							
								COLOS		SIC 2	SPEED	۸ ا	METER (mbs)		DRY ULB	WET BULB	CODE VIS.	OBS. DEPTHS		VATIONS								
								CODE	hut	+-	FORCE	+		+				09	-		1							
									4-	00	500		254	1 0	67	056	-	0.9			·					1	Τ -	
		MESSENGR TIME d		CARO	DEPTH	(m)		T *C		s ·/.	SIG	M A -			VOLU	7 D	∆ D rN. M. (16 <sup>3</sup>		OCITY	O 2 m1/		- ot/I	TOTAL		NO 2-N	NO3-N	SI O4-SI Na - ai/i	
		HR 1/10					-				+	_	-+		_	-		<del></del>										
			l I		_			0.07	١,	266	1	, 0	- 1	001	560	- 1	000	1 14	688	l	ı					1	1	'
				ST				0497		346		48		001	200	> U	000		688									
		064	•	085				0497		3458		48		001	547	<i>(</i> . 0	016		691									
				51				0499		348 350		51			534		031		693									
				ST				0500 0501	_	3512		52		001	4-راد.	4 0	100		695									
		064	•	OBS		-		0473		361		63		001	423	a ^	046		685									
				ST				0358		398		704			033		070		645									
				ST	-			0349		3999		706		301	.000	2	0 1 0		642									
		064	•	OBS	-			0280		2777 406		718		000	905	1 (	095		617									
		0.4		ST OBS				0271	-	4085		720		000	,,,,,		0,,		614									
		064	•	51				0362		435		733		ممر	762	5 (	115		660									
		064		085	-			0379		4405		736		•••					+669									
		00-	•	ST				0431		456		743		000	676	3 0	133	14	696									
				ST	-			0475		471	_	750			614		149		721									
		064		085				0481	_	4732		751				_		14	724									
		00-	•	51				0488		483	_	758		000	544	4 (	178	14	+736									
		064		OBS				0489		4845		759						14	738									
		064	+	ST				0462	-	486		763		000	498	6	205		734									
				51				0436		487		767			)467		229		4731									
		064	r.	085				0431		4872		767				• `			4731									
		064		085				0410	_	4884	_	770							4735									

REFERE	NCE ID. NO.	SHIP	LATITU	IDE 1/10	LONG	GITUDE '1/10	DRIFT	MARS SOU	ARE	-	TION (GMT		YEAR	CRUISE NO.	UGINATO STAT NUA	ION		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL	08		VE A TIONS	TH		CLOUD CODES			ON TATE AUA	TION
215	016	ΕV	4650	) N	046	502 W		149	66	06	05	084	1967		1000	3	- 1	0293	03	25	2	2	X	0	10		ļ	0.0	087
J 170	,014	, L. V	1 4021	, ,,	0 -10	JUL 1	' '	111	WAT		Ť	WIND	BAR	a A	R TEMP.			NO.		CIAL	7								
									COLOR	TRANS Imi	DIR	SPEED OR FORC	MET	R D		VET ULB	VIS.	OBS. GEPTHS		/A TION S	5								
											00	500	25	4 08	3 (	72	6	08			<u></u>						_		_
		MESSENG TIME HP 1/1		CAR		OEPTH	(m)	7	*c	s	٠/	SIG	MA-T	SPECIFIC ANOMA	VOLUME LY-X10?	OYI	10 <sup>3</sup>		UND OCITY	O 2 m1/		PO 4~P g = 01/1	101AL 20 - 0		NO2~N µg + a1/1	NO3-N yg - a1/3	SI O4-		рН
								1										١,,,	. 73		1						1	ı	
					ŢΟ	000			457		47		53	001	180	00	00		672										
		0 8	34	0B:	-	000			457	_	47		53	001		0.0	15		676										
					TD	001			463	-	49		54	001		_	30		681										
					TΟ	002			469		50		55	001	1780	00	, , 0		.001										
		0 8	34	OB:		002			3710 475		1514 163		66Q	001	.112	0.0	45	14	687										
					TD TD	003			487		04		95	001			70		700										
				0B:		005			488	_	05		96	001	. 10	0.	, , ,		701										
		0	84		5 TD	007			419		21		16	000	9218	0.0	95		678										
		0	84	0B		007			418		21		16	000		•			678										
		0	<b>-</b>		τo	010			461	_	446		731	000	7806	0	117	14	+703										
		0	84	ОВ		010			464		447		732					14	+705										
			-		ΤD	012			470	34	+58	2.	740	000	7031	0	135	5 14	713										
					ΤD	015		Ċ	476	34	+66	2	745	000	6530	0	152		721										
		0	84	QB		T015	6	(	478	34	+67	0 2	146						722										
				5	TΟ	020	0	(	441	34	70		753	000	5898	0	183		+715										
		0	84	ОВ	5	020	16	(	437	34	471	0 2	754						4714										
				5	TD	025			431	-	476		758	000	5390	0	211	-	4719										
		0	84	οв	5	T029	91	(	1425	34	482	7 2	764					1.4	4725										

	ID.	SHIP	LATITE	JDE 3/10	LONG	17UDE	DRIFT	MARS SQUA	DEN ARE		TION T		YE AR	CRUIS NO.	ξ .	ATOR'S STATION STATION		DEPTH TO OTTOM	MAX. DEPTH OF S'MPL"	OB	WAVE SERVAT	ONS	WEA- THER CODE	CO	DES		\$	NODC TATION UMBER
+		ΕV	470		046			149	76				1967		+	004		320	03	1		_	xo	1	0			0088
							' '		WA	_	_	VIND	BARO		AIR TE		ΤŤ	NO.			1		1 110				'	0000
									COLOR	TRAN!	DIR.	SPEED OR FORCE	METE!	R	DRY BULB	WET	CODE	OBS. DEPTHS		CIAL /ATIONS								
								İ			00	500	26	1 1	072	061	6	09										
		MESSENGE TIME HR 1/10	NO.	C AR TYPI		DEPTH (	m)	Т	*c		٠/	SIGM	7-A		VALY-X	ME D	△ D (N. M. (10 <sup>3</sup>		UND OCITY	0 2 ml/	PO.		101AL-P	NO2		NO3-N µg - at/l	SI O4~Sı 1/1ه + وبر	
				S1	TD	000	0	0	384	33	324	264	43	00	1609	0 0	000	14	638									
		10	4	083	S	000	0	0	384	33	243	264	43					14	638									
				s.	TΟ	001		0	445		139	26	48	00	1558	5 0	016	14	667									
				s.	TD	002			477		153	26	56	00	1487	2 0	031	14	684									
		10	4	08		002			482		1592	266							688									
					T D	003			460		364	26			1387		045		680									
					TD	005			396		85	261		00	1169	6 0	071		660									
		10	4	08	_	005			396		3847	26							660									
				-	TD	007			370		13	27		0.0	0932	21 0	097		657									
		10	4	083		007			370		132	27							657									
					TD	010			463		49	27		00	0764	0 0	118		704									
		10	4	083	-	010			463		485	27			a 7 a a		107		704									
					TD	012		-	455		55	27:			0709		137		706									
		1.0			TD	015			448		62	27		00	0651	.6	154		708									
		10	4	085		T015			447		630	27		0.0	0557		101		708									
		1.0	,	S.		020			478	_	80	27		00	0556	1 0	184		731									
		10	4	QB3	_	020			479		806	27		0.0			211		732									
				_	TD	025			476		84	27			0529		211		739									
					T D	030		0	437		85	276	55	001	0483	7 0	237	14	731									
		10		083	_	030					851																	
		10	4	0B:	S	031	1	0	424	34	849	27	56					14	728									

REFERENCE CTRY IO. CODE NO.	SHIP	LATITUDE 1/10	LONG	IV10 FOCTS	MAR SOU	ARE	STATION (G M	HR.1/1	YE AR	CRUISE NO.		OR*S TION MBER	DEP TO BOTT	O	MAX. DEPTH OF S'MPL*S	l		VE A TION:	Ī	WEA- THER CODE	CC	OUD			NODC STATION NUMBER	
31801	6 EV	4730 N	046	02 W	149	76	06 05	128	196	7	1000	)5	03	75	04	24	2	4		ΧO		0			008	•
						WAT	ER	WIND	BAR	0- A	IR TEMP.	*C vi	, NO		SPEC	IAI	]									
						COLOR	1RANS. D	IR. 0	8 1 777			VET CO	DEP1	BS.	OBSERV											
							2	2 50			61 (	50 7	0'	9			1									
	MESSENGR TIME o		RD PE	DEPTH (m)	т	*c	s ·/.		IGMA=T	SPECIFIC	VOLUME NEY-X10 <sup>7</sup>	₹ △ DYN. x 10	м.   ,	SOUP VELO		O <sub>2</sub> ml/l		O4-P 9 - 01/1	TOTA - Qu	L-P	NO:		NO3-N yg - at/l	SI O4= pg - al		S C C
																				1						
			OTO	0000	C	406	3335	- 2	649	001	5485	000	0	146	49											
	128			0000		406	3335		649					146												
			STD	0010		390	3344		658		4670	001		146												
		_	TD	0020		371	3358		671	001	3444	002		146												
	128			0025		360	3366		679	001	12/0	00/		146												
			STD.	0030		338	3382 3429		693 735		1340	004		146												
	128		TD	0050		294	3430		736	000	7420	006		146												
	120		5 T D	0075		333	3450		748	000	6204	007		146												
	128			0076		334	3450		748	000	0.0	001		146												
			STD	0100		354	3461		754	000	5593	009		146												
	128			0102		356	3461		755					146												
			TD	0125	C	376	3468		758	000	5303	010	6	146	75											
			TD	0150	Ç	394	3474		761		5056	011	9	146	87											
	128	3 06	3.5	0152			3474	6																		
		5	TD	0200	C	419	3481	2	764	000	4839	014	3	147	707											
	128			0204		420	3481		764					147												
			STD	0250		421	3486		767		4541	016		147												
			STD	0300		423	3488		769	000	4457	018		147												
	128			T0306		423	3488		769					147												
	128	3 06	35	0356	C	412	3488	1 2	770					147	731											

TRY ID.	SHIP	LATITU	DE 1/10	LONGITUDE	SQ1	SDEN JARE	STATION IGM	T)	YEAR	CRUISE NO.	S	ATOR'S TATION NUMBER		DEPTH 10 BOTTOM	MAX. DEPTH OF S'MPL"	1 ~	BSERV	A VE ZA TIO		WEA- THER CODE	CLO	es		1 9	NODC STATION NUMBER
318016	EV	4749	N	04602 W	149	WA	TER TRANS. DI	WIND SPEE	BA ME	RO-	10 AIR TEA DRY ULB	006 MP. ℃ WET BULB	vis.	0732 NO. OBS. DEPTHS	O 7	CIAL 'A TION		2		x <sub>0</sub>		0			0090
							2	3 51	0 2	51 0	67	056	8	11											
	MESSENGR TIME HR 1/10	CAST NO.	CARC		1)	r *c	5 */.	. SI	GMA-T		VOLU ALY-XI	07 D	∆ D YN. M x 10 <sup>3</sup>		UND	0 2 m	1/3	PO4-	- 1	1/10 - gu	NO2-		NO3-N 19 - al/l	\$1 Q4-\$ µg - at/	
		) )	ST	D 0000	)	0445	3357	2	662	001	423	0 0	000	14	668				-		l	-			1
	149	9	OBS			1445	3356		662					14	668										
			ST			379	3368	2	678	001	275	8 0	013	14	644										
			ST	D 0020	) (	321	3379	2	692	001	140	8 0	026	14	622										
	14	9	085	0025	5 1	294	3383	7 2	699					14	612										
			ST	D 0030	) (	256	3389	2	706	001	011	2 0	036	14	597										
	14	9	089	0049	9 1	0191	3407	0 2	726						574										
			ST	D 0050	)	0195	3408	2	726	000	821	.3 C	055		576										
	14	9	089	0074		0296	3430	7 2	736						627										
			ST	D 0079		0303	3432	2	736	000	728	9 0	074		630										
	14	9	085	0098		0428	3459		746						691										
			51	D 0100	)	0428	3460	2	746	000	640	7 0	091		691										
			ST	D 0125	5 1	1429	3467	2	752	000	591	.2 0	107	14	697										
	14	9	085	0149	7		3473	0																	
			ST	D 0150	)	0429	3473	2	756	000	)547	8 0	121	14	702										
	14	9	089	0198	3 1	0640	3481	4 2	763					14	711										
			51	0 0200	)	0430	3482	2	763	000	488	3 0	147	14	712										
			SI	D 0250		0436	3487	2	767	000	)462	2 0	170	14	723										
	14	9	089		7	0441	3490	1 2	769						733										
			51	D 0300	)	0440	3490	2	769	000	1449	96 0	193		+733										
	14	9	085		7	0405	3487	2 2	770						+734										
			S 1	D 0400	)	0405	3487	2	770	000	)441		238		+735										
			51		)	0404	3489	2	772	000	)437	74 (	282		+751										
	14	9	089		5	0401	3490	6 2	773						+766										
			51	D 0600	)	0401	3491	. 2	773	000	0431	17 (	325	14	767										
			51	0 0700	)	0397	3491	2	774	000	0437	74 0	369		+782										
	14	9	083		2	0396	3490	5 2	774					1.4	+783										

REFERENCE CTRY ID.	SHIP	LATITU	DE	LONG	NOCTE POUR		IARE	((	ON THE		YEAR	CRUIS NO.		ATOR'S	4	DEPTH TO BOTTON	OF	1	DBSER	VAVE VATIONS	WEA- THER CODE	CLOUD CODES		\ S	NODC FATION UMBER
CODE NO.	0001		1/10		1/10	10*	-	AO D					-			0967	09	2	2	2 2	x1	3 2			0091
318016	ΕV	4810	N	046	02 W	149		_			196	1	AIR TE	007	-	· -	1 0 7	-	٦'.	-   -	1		'	'	
							WAT	_	w	SPEED	BAF		DRY	WET	VIS.	NO.	OBSER	CIAL							
							COLOR	TRANS.	DIR.	FORCE	M E1		8018	BULI		DEPTH	S OUTL								
							-		24	510	2.	44	072	06	7 7	12									
		,				-		_	2 4	7	-		_	1	₹ △ Þ	<del>'                                    </del>				PO <sub>4</sub> -P	TOTAL-P	NO2-N	NO3-N	SI 04-51	1
	MESSENGR TIME HR 1/10	약 NO.	CAF		DEPTH Im1		r *c	S	٠/	SIGN	1 A A - T	ANO	MALY-X		X 10 <sup>3</sup>	١. ا	LOCITY	02 1	nl/1	μο • ο1/1	μg - 01/1	ug = ot/l	νg = σ1/1	μg = αl/	рН
																1		l							1 1
	1	,	5	TD	0000	. (	0485	33	81	26		00	1284	2	0000		4688								
	17	4	ОВ		0000	(	0485		809	26							4688								
		•		TD	0010	1	0474	34		27			1055	_	0012		4689								
			S	TD	0020		0458	34		27		00	0911	16	002		4686 4686								
	17	4	08		0021		0456		287	27		0.0	007	. 1	0030		4676								
				STD.	0030		0430		28	27		00	0876	) I	0031		4666								
	17	4	0.8	-	0044		0401		268	27		0.0	0790	2	004		4666								
				STD	0050		0395		35 506		30 43	uu	U / 71	, ,	004		4667								
	17	4	0.5		0065		0387	_	53		45	0.0	0651	16	006		4670								
				STD	0075		0388		566		47	00	000	, ,	000		4673								
	17	4	0.6		0088 0100		0390 0374		59		51	0.0	059	37	008		4669								
				510	0100		0355		65		58		053		009	5 1	4665								
				STD	10132		0353		660		59					1	4666								
	17	4	0.6	55 510	0150		0362		70		61	0.0	050	37	010	8 1	4673								
	17	, ,	OE		0178		0373		744		163					1	4683								
	1 /	4		STD	0200		0378		77		765	00	047	15	013		4689								
				STD	0250		0386	34	80	27	766	0.0	046	17	015		4701								
	17	7.4		BS	10266		0387	34	811	27	767						4704								
				STD	0300		0387		+82		768	0 (	045	21	017		4710								
	17	7 4	01	BS	0361		0386		+83C		769						.4720 .4731								
				STD	0400		0396		+85		769		0044		042	_	L4751 L4754								
				STD	0500		0410		488		770	01	0045	16	046		L4763								
	1	74		BS	T0548		0412		4894		771		2011	6.7	031		L4763								
				STD	0600		0405		489		772		0044		-		L4780								
				STD	0700		0393		489		773	0	0044	10	035		14780 14784								
	1	74		BS	0732		0389		4894		773	0	0043	4.0	040		14792								
				STD	0800		0382		490		774	U	0043	00	040	-	14800								
	1	74	0	BS	0863		0376	3.	4898	3 2	775						- +000	•							1.7

D.	SHIP	LATITU	DE 1/10	LONGITUDE	DRIFT	MARS SQU	ARE		MTI		YEAR	CRUISE NO.		TOR'S ATION MBER	-	DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL"	1 .	WAVE SERVATI	ions	WEA- THER CDDE	CLO	ES	51	NODC ATION UMBER
016	ΕV	4818	15N (	04602 W		149	86	06 0	5 1	190 1	967		100	0.8		1189	11	21	2 2	,	X1	3	7		0092
JIG	LV	4010	1014	0-1002 W	1	14)	WA			IND	T		IR TEM		-	NO.			1212	. 1	1 1	, ,	, ,	1	0072
							COLOR	TRANS.	OIR.	SPEED OR FORCE	METER (mbs)	: -	RY Jl8		VIS. ODE	000		CIAL 'ATIONS							
									24	512	23	7 0	72	067	7	12									
- 1	MESSENGA TIME HR 1/10	of NO.	CARO TYPE	DEPTH	(m )	т	*c	5 •	/ <b>.</b> .	SIGM	A-T		VOLUM ALY-K10'	E & A	о М.		DCITY	02 ml/	PO.		101A L-P yg + a1/1	NO2-		04-Si - 01/I	рН
																							Į.		
			ST	000	0	0	479	337	4	26	7 2	001	3327	00	00	14	685								
	19	0	OBS	000			479	337		26							685								
			ST				424	339		269			0862				667								
			ST				382	341		27		000	9105	00	22		653								
	19	0	OBS				363	342		277							647								
			ST				361	342		272			8236				647								
			ST				339	343		27:		000	7746	00	47		642								
	19	0	OBS	005			336	343		27:							641								
			ST				282	343		274		000	6654	00	65		622								
	19	0	OBS	007			280	343		274							622								
			ST				293	344		279		000	5936	00	80		633								
	19	U	OBS				296 320	345		279		000	6620	00	0.5		635								
			ST				345	345 346		279			5520 5172				650 665								
	19	0	085	1015			351	346		276		000	2112	01	00		669								
	19	U	ST				389	347		276		000	4827	01	<b>a</b> a		694								
	19	0	085				392	347		276		000	702 /	01	,,		696								
	1 7	U	511				380	347		276		000	4631	01	57		699								
			ST				372	348		276			4519				704								
	19	0	085				371	348	-	276		000	,,,,	0 -	00		704								
	1 7	U	ST				374	348		276		0.00	4479	02	25		721								
	19	n	085	040			375	348		27		000	,	0-			723								
	• •	•	ST				384	348		27		000	4414	0.2	69		742								
			STI				394	348		27			4384	03			763								
	19	0	OBS	T061			395	348		27		•		-			766								
	- 1	-	ST				390	349		27		000	4353	03	57		779								
			ST		10	0	384	349	1	27		000	4316	04	00	14	793								
	19	0	085	1082			383	349	07	27						14	796								
			ST				377	349		27		000	4294	04	43	14	807								
			ST	D 100	00	0	369	349	1	27	77	000	4265	04	86	14	820								
			ST				360	349	_	27			4221	05			833								
	19	0	OBS	112			358	349		27		0					836								

REFERENCE	SHIP	Ī				E E	MARS		STA		TIME				ORIGIN	ATOR'S		DEP		MAX.	.	WA	VE ATIONS	WE		LOUD			NOOC
CTRY ID.	CODE	LATITUE	1/10	LONGI	1/10	DRIFT	50U	AKE Ti-	MD	IGM	HR,1/		YEAR	CRUIS NO		STATION NUMBE		BOTT		OF S'MPL			PER S		<u>با</u> ء	PE AM			NUMBER RIBMUN
31801	16 EV	4438	5 N	0491	10W		149	49			1	$\neg$	967		10	009		009	58	00	27	2	2	X.	2	7 8			0093
								WA	TER	T	WIND		BAR	. L	AIR TEA		VIS.	NC		505	CIAL	7							
								COLOR	TRAN	£ DII	R.   (	EED DR IRCE	MET!	R	ORY BULB	WET BULB	COD	DEP1	s. THS	OBSERV	ATIONS	5							
									1	2.		14	24	7	094	089	6	0	3			1							
	MESSENS TIME HR 1/1	CAST OF NO.	C ARD TYPE		DEPTH I	m)	ı	*C		s ·/.	. !	SIG M	A - T		MALY-I		∆ D 17N. № x 10 <sup>3</sup>	۸.   ,	VELO SOU	CITY	0 2 mt/		04-P - 01/S	107AL-			NO3-N µg - al/l		
	1	7.0	ST OBS		000			645 645		265 265		256 256		00	2332	1 (	000			738 738				1	!			!	I
	1	4	ST	D	001	0	0	5ú9	3.	266		258	3 4		2173		023	3	146	584									
	1	74	ST OBS		002			379 316		270 272		260 260	-	00	2015	1 (	1043			532 506									
			51		003			255		276 297		261		_	1865		063			581 484									
	1.	7 4	ST		005			024		291		264 264		00	1557	1 (	097			484									

REFERENCE	E			_		_ =	MARS		STAT	ION TI			C	RIGINA	TOR'S		DEPTH	MAX.	0.0	WA	VE A TIONS		WEA-	CLOUD			NODC TATION
CTRY IO.	CODE	LATITU	- 1	LONG	SITUOE	DRIFT	\$00			GMTI		YEAR	CRUISE NO.		ATION		OT MOTTOS	0.6			PER S		ODE	TYPE AM	-		UMBER
CODE NO.	).		1/10		1/10	-	10	1.	-	AY H			140.			-+		1	1	1-1			м Э				0094
31801	16 EV	4436	N	049	901 W		149	49		)6 ]		1967		100	_		0549	05	24	2	2	- 1	X 2	7 8	1		0094
								WA	т.	-	SPEED	BARC	)- <del> </del>	IR TEM	WET.	VIS.	NO.	SPE	CIAL								
								COLOR	TRANS.	OIR.	FORCE	M ETE		DT8	BULB	CODE	OEPTHS	ORZEKA	A HON S								
										20	510	24	7 1	11	100	0 6	10			1							
	MESSENG TIME	R CAST	CAS		DEPTH	(m l	ī	℃	5	٠/	SIGN	-	SPECIFIC		A E	Ž ∆ D	50	DAD	O <sub>2</sub> ml/	/1	PO4-P		A L = P	NO2-N	NO3-N	\$1 O4=\$1	
	HR 1/10		TYS	PE		_									_ _	x 10 <sup>3</sup>	+		_			-					+
							1					1						1									
			s	TD	000	0	0	406	32	78	26	04	001	977	9 1	0000		641									
	18	5	08	S	000	0	0	406		781	26							641									
			5	TO	001			290	32		26			865		0019	_	593									
				TD	002			183	32		26		001	776	1	0037		548									
	18	5	ОВ		002			133		815	26				_	0055		527									
				TD	003			073		86	26			669	-	0055 0086		433									
				TO	009			087		01	26		001	485	1	0086		433									
	18		ОВ		005			087		006	26							429									
	18	15	08		007			107		084	26	-	001	416	0	0122		429									
				TO	007			108		09 105	26 26		001	410	7	0122		432									
	18	55	ОВ		009			109		11	26		001	396	6	0158		434									
				TD	010			)107 )047		33	26			249		0191	-	469									
	18	. 6	08	TD	012			0006		510	26		001	. 4 7	,			+500									
	10	> >		T0	019			0008		52	26		0.01	130	1	0220		501									
	18	16	08		019			102		815	27			0				+556									
	10	, ,		, TO	020			106		83	27		000	951	9	0273	14	+558									
				510	025			274		35	27			691		0314		+647									
	18	3.5	OB		029			376		680	27						14	703									
	1.0			5TD	030			378		69		58	000	540	4	0344	. 14	705									
	18	35	OE		T039			0416		836		66					14	738									
	10			STD	040			0416		84		66	000	478	1	0395	14	4739									
	18	35	OE		049			0414		885	27	70					14	4755									
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REFERENCE CTRY ID.	SHIP	LA TITUE	DE L	ONGITUOE E	MARS SQU	ARE	STATION (GM	TIME ti HR,1/10	YEAR	CRUI	SE !	ATOR'S STATION NUMBER		OEPTH TO BOTTON	M AX. OEPTH OF S'MPL'	1	OBSER	A VE EVA TIO	THE COD	R	CLOUO CODES	1		NODC STATION NUMBER
318016	ΕV	4435	N C	4856 W	149	48	06 06	195	196	7	10	011		0805	08	. 2	4 2	2 2	X a	2	7 8			0095
J1 0010	4 - 4 I	7732	11   0		1 - 1	WA	_	WIND	1	80-	AIR TE		1	NO.	1		Π.							
					1	COLOR	TRANS. OL	SPEI	DIME	TER	DRY	wet	CODE		OBSER	CIAL VATIO	NS							
						COOE	imi	R. OF	CE (m	nbs1	BULB	BULB		DEFINS			_							
							1	9 51	2 2	47	100	089	6	11			1							
	MESSENGA TIME HR 1/10	약 NO.	CARD	DEPTH (m)	ī	*c	s */.	. SI	GMA-t		IFIC VOLU	IME D	∆ D YN. M x 10 <sup>3</sup>	. SO	ONU OCITY	02	m1/I	PO 4-	101At-		102-N 18 - al/l	NO3-N ug = al/l	\$1 D4=5	
	1	1 1	STO	0000	΄ ο	402	3275	. · 2	602	00	1996	0 0	000	14	639									
	19	5	OBS	0000		402	3275		602					14	639									
		-	ST		0	302	3276	2	612	0.0	1902	8 0	019	1,4	+598									
			ST		0	199	3277	2	621	0.0	1819	1 0	038		+555									
	19	5	OBS	0025	0	146	3277	0 2	625						532									
			ST	0030		068	3283		634	00	1689	) 1 C	056		499									
	19	5	obs	0049		122	3302		658						+417									
			ST			122	3303		659	00	1456	3 0	087		+417									
	19	5	OBS	0074		120	3315		669						+424									
			ST			119	3316		669	0.0	1355	9 (	122		4424									
	19	5	obs	0098		092	3326		676						4442									
			ST		-	088	3327		677		1280		155		4445									
			ST			024	3343		687	0(	1183	38 (	186		4481									
	19	15	obs			050	3364		701						4522 4524									
			ST			055	3366		702	01	1049	92 (	)214		_									
	19	15	OBS			249	3425		736	0.	00736		259		+627 +628									
			ST			251	3426		736		00599		1497		4678									
			ST			340 395	3456 3474		761	0	3039	) (	1272		4712									
	19	15	obs st			396	3479		761	0.1	0051	43 (	320		4713									
	10		085			)421	3483		2766			• - •	J - L C	-	4741									
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			ST			)416	3487		769		0046		0417		4756									
	19	16	0BS			0411	3489		771			٠, ,			4770									
	19	, ,	ST			411	3489		771	0	0045	35 (	0463		4771									
			ST			405	3490		2772	-	0045		0508		4785									
	19	36	085			399	3489		2773	•					4799									

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CTRY ID.	SHIP	LATITU	- 1	NGITUDE NGCT	MARSDEN	STATION THE	YE	EAR		TATION UMBER	1	DEPTH TO IOTIOM	DEPTH OF S'MPL'S	OBSE	WAVE RVATIONS HGT PER SE	THER CODE	CLOUD		ST	NODC TATION UMBER
31801	EV	4433	5N 04	1/10 = 842 W		06 06 2		967		012	2	2103	11	1	2 3	X4	7 8			0096
					COLOR	TRANS. DIR.	SPEED	8ARO METER			VIS.	NO.	SPEC OBSERV	LAL						
					CODE	imi	FORCE	(mbs)	BULB	BULB	'	DEFINS								
	MESSENGR	CAST	CARD			20]	S10	24	7 078		6 D.	12 sou	ND T	!	PO 4-P	101AL-P	NO2-N	N03-N	SI 04=Si	5
	TIME 4	NO.	TYPE	DEPTH (m)	ī °C	5 %.	SIGMA	·-T	ANOMALY-X	DYN	103	VELD		O2 ml/l	μg - 01/l	μg - σf/l	µg - a1/1	yg - at/1	μg - at/l	pH C
			STD	0000	0384	3295	262	n	001826	9 00	000	146	34							
	209	7	OBS	0000	0384	32954 3307	262	0			)18	146	34							
			STD STD	0010 0020	0382 0379	3320	262 264	0	001738 001638		35	146	39							
	209	€	OBS STD	0026 0030	0378 0362	33273 3333	264 265		001525	2 00	51	146 146								
	209	•	STD OBS	0050 0052	0284 0276	3361 33633	268 268		001246	8 00	78	146								
	209		STD OBS	0075 0077	0183 0181	3387 33888	271	0	000972	3 01	06	14	572							
			STD	0100	0229	3410	272	5	000834	3 01	29	145	599							
	209	₹	OBS STD	0102 0125	0235 0364	34123 3442	272		000713	9 01	48	146								
	209	9	STD OBS	0150 T0153	0453 0460	3464 34664	274		000642	4 01	165	14								
	209	,	STD OBS	0200 0205	0461 0461	3475 34757	275 275	4	000574	1 01	95	147								
	20	,	STD	0250	0489	3485	275	9	000536		223	14	745							
	209	9	STD OBS	0300 10306	0504 0505	3492 34930	276 276		000507	7 02	249	14	762							
	209	,	STD OBS	0400 0408	0486 0484	3495 34954	276 276		000476	0 04	98	14								
			STD	0500 0600	0454 0427	3495 3494	277	1	000451		845	14								
	209	7	OBS	T0608	0425	34940	277	3				14	779							
			STD STD	0700 0800	0404 0387	3492 3491	277 277	5	000434		•33 •76	14	794							
	209	7	OBS STD	T0805 0900	0386 0382	34909 3491	2 <b>77</b> 277		000434	8 05	19	147								
			STD	1000	0377 0372	3491 3491	277		000437	5 05	063	148								
	209	9	OBS	1109	0372	34910	277		000440	0 00			339							
			003	1107	03.2	3	211	ı				140	, ,							
PEEFBENCE	,							<i>'</i>	1			140				,	,			
REFERENCE CTRY ID. CODE NO.	SHIP	LATITU	IDE LO	DNGITUDE BO	MARSDEN SQUARE	STATION TI	ME	/ rear	CRUISE	ATOR'S		DEPTH 10	MAX. DEPTH OF	085	WAVE ERVATIONS	WEA THER	CODE		5	NODC STATION
CTRY ID.	CODE		DE LC	PNGITUDE 182	MARSDEN	STATION TI	ME Y		CRUISE NO.		-+	DEPTH	MAX.	085	HGT PER S	A COD	TYPE AM		5	TATION
CTRY ID.	CODE	LATITU	DE LC	1/10 E 20 2	MARSDEN SQUARE 10' 1' 149 48	STATION TI	ME 1710 225 1	rEAR 967	CRUISE NO. 10	STATION NUMBER 013 MP. °C	VIS.	DEPTH TO BOTTOM 2834 NO.	MAX. DEPTH OF S'MPL'	S DIR 26	ERVATIONS	THER	CODE		5	NOITATI
CTRY ID.	CODE	LATITU	DE LC	1/10 E 20 2	MARSDEN SQUARE	STATION TI (GMT)  MO DAY H  06 06 2  TER Y  TRANS. DIR.	ME Y R,1/10 2.2.5 1 /IND SPEED OR FORCE	967 BARC METE	CRUISE NO.	OLS MP. *C WET BULB	VIS,	DEPTH TO BOTTOM 2834 ND. OBS. DEPTHS	MAX. DEPTH OF S'MPL'	085 5 DIR 26	HGT PER S	A COD	TYPE AM		5	TATION
CTRY ID.	6 EV	4430	DE LC	NGITUDE 1880 11/10 4829 W	MARSDEN SQUARE 10° 1° 149 48 WA COLOR CODE	STATION TI IGMT)  MO DAY H  06 06 2  TER W  TRANS. DIR.	ME Y R.1/10 225 1 (IND SPEED OR FORCE S12	BARC METE Imbs	CRUISE NO. 10  AIR TE DRY BULB  7 072	OLS MP. 'C WET BULB	vis.	DEPTH TO BOTTOM 2834 NO. OBS. DEPTHS	MAX. DEPTHOOF S'MPL'  11  SPE OBSERV	OBS DIR 26 CIAL ATIONS	ERVATIONS	THER CODE	TYPE AM	T	S	OO97
CTRY ID.	6 EV	4430	1/10 1/10 05N 04	1/10 E 20 2	MARSDEN SQUARE 10° 1° 149 48 WA COLOR	STATION TI (GMT)  MO DAY H  06 06 2  TER Y  TRANS. DIR.	ME Y R,1/10 2.2.5 1 /IND SPEED OR FORCE	BARC METE Imbs	CRUISE NO.	O13 MP. C WET BULB O72	VIS,	DEPTH TO BOTTOM 2834 ND. OBS. DEPTHS	MAX. DEPTH OF S'MPL'  11 SPE OBSERV	S DIR 26	HGT PER S	A COD	7 8		5	OO97
CTRY ID.	CODE 6 EV	4430	DE LC 1/10 )5N 04	NGITUDE 1880 11/10 4829 W	MARSDEN SQUARE 10° 1° 149 48 WA COLOR CODE	STATION TI IGMT)  MO DAY H  06 06 2  TER W  TRANS. DIR.	ME 7 1/10 225 1 //IND SPEED OR FORCE 512 SIGMA	967 BARC METE (mbs 24	CRUISE NO. 10  AIR TE PR BULB  7 072  SPECIFIC VOLUME ANOMALY—X1	STATION NUMBER  O 1 5  MP. 'C  WET BULB  O 7 2  ME DY'  X	VIS. CODE 6 △ D. N. M.	DEPTH TO BOTTOM  2834  NO. OBS. DEPTHS  12  SOUL VELCO	MAX. DEPTH OF S'MPL'  11  SPE DBSERV	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	CODE 6 EV	4430	CARD TYPE	DEPTH (m)	MARSDEN SQUARE 10' 1' 149 48 WA COLOR CODE 1 'C	STATION TI (GMT)  MO DAY H  06 06 2  FER W  18ANS DIR.  20  3289 3289	ME 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	967 BARC METE (mbs 24 A-T 0	CRUISE NO. 10 10 - AIR TE BULB 7 072 SPECIFIC VOLU ANOMALY—X1	STATION NUMBER  O15 MP. 'C WET BULB  O72  ME STATION  O72  AME STATION	VIS. COOF	DEPTH TO BOITOM 2834 NO. OBS. DEPTHS 12 SOLUTER 144	MAX. DEPTH OF S'MPL'  11 SPE OBSERV	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSENGE TIME HR 1/10	LATITU 4430	CARD TYPE  STD OBS STD STD	DEPTH (m)  0000 0010 0010 0020	MARSDEN SQUARE 10° 1° 149 48  WA COLOR CODE  1 °C  0329 0329 0329 0458 0518	STATION 11 (GM1)  MO DAY H  06 06 2  FER W  1 TEANS: DIR.  20  3289 3289 3289 3289 3292	R.1/10  R.1/10  2.25 1  VIND  SPEED OR FORCE  S.12  2.62 2.62 2.60 2.60	967  BARC METE (mbb 24 A-T)  0 0 8 3	CRUISE NO. 10  AIR TE PR BULB  7 072  SPECIFIC VOLUME ANOMALY—X1	STATION NUMBER  013  MP. ℃  WET BULB  072  MED  T  T  T  T  T  T  T  T  T  T  T  T  T	VIS. CODE 6 △ D. N. M.	DEPTH TO BOTTOM 2834 ND. OBS. DEPTHS 12 SOL VELC 144 144 144 144 144 144 144 144 144 14	MAX. DEPTH OF S'MPL'  11 SPE DBSERV	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSENGE TIME HR 1/10	4430 CAST NO.	CARD TYPE  STD OBS STD STD OBS STD OBS STD OBS	DEPTH (m)  0000 0000 0010 0020 0020 0020	MARSDEN SDUARE 10° 1° 10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	STATION 11 GM1 MO DAY H MO DAY H MO DAY H MO DAY H MO DIR. TERM WAS A STATE OF THE MO DIR.	R.1/10 2.2.5 1 VIND SPEED OR FORCE S.1.2 SIGMA 2.6.2 2.6.0 2.6.0 2.6.0 2.6.0 2.6.0 2.6.0	967  BARCO METE (mbs 24  A-T  0 0 8 3 3 4	CRUISE NO. 10  AIR TE R DESTRICT VOLUMENT AND MALY—XI  001826 001936	STATION NUMBER  013  MP. 'C  WET BULB  072  AME SUB  1 000  4 000  2 000	VIS. COOR 6	DEPTH 080 TO M 28 3 4 NO. 085. DEPTHS 12 SOL VELC 144. 144. 144. 144. 144. 144. 144.	MAXX, DEPTH OF SYMPL' 11 SPEC OBSERV	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSENGR TIME HR 1/10	CAST NO.	CARD TYPE  STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD	DEPTH (m)  0000 0000 0010 0020 0024 0030 0047	MARSDEN SQUARE  10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	STATION 11 IGM1 MO DAY H MO DA	ME 7. R.1/10 225 1 (IND SPEED OF PORCE ST2 262 260 260 260 263 270 271	967  BARCAMETE (mbs)  24  A-T  0 0 8 3 3 4 6 0	CRUISE NO. 10  AIR TE PROPERTY OF THE PROPERTY	STATION NUMBER 015 MP. 'C WEET BULB 072 MALE DYIN X 1 00 4 00 2 00 4 00 4	VIS. CODE 6 6 N. M. 10 <sup>3</sup>	DEPTH 080 TO M 28 3 4 NO. 085. DEPTHS 12 SOL VELC 144. 144. 144. 144. 144. 144. 144.	MAXX. DEPTH OF STMPL' 11 SPE OBSERV  610 610 666 693 696 677 637	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSENGE TIME HR 1/10	CAST NO.	CARD TYPE  STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD	DEPTH (m)  0000 0000 0010 0020 0024 0030 0047 0050 0071	MARSDEN SQUARE 10' 1' 149 48 WA COLOR CODE 0329 0456 0518 0523 0464 0338 0324 0261	STATION TI MO DAY H 06 06 2 IER 20 1 TRANS DIR. 20 3289 3289 3291 3292 3292 3292 3292 3292 3292 3292 3292 3292 3292 3292 3292 3292 3292 3292 3292 3292 3292 3292 3295	ME 3. 1710 225 1 2750 SIGMA 260 260 260 260 260 270 276 276	967  BARR METE (TE)  24  A-T  0 0 8 3 3 4 6 0 0 0 P	CRUISE 10 10 10 10 10 10 10 10 10 10 10 10 10	STATION NUMBER 015 MP. C WELL 8 ULB 072 MP. C WLB 072 MP. C WLB 074 MP. C WLB 074 MP. C WLB 075 MP.	vis. do not not not not not not not not not no	DEFTH TO TO SOL VELCO TO THE TABLE TO TO TO TO THE TO TO THE THE TO THE	MAXX. DEPTHOF STMPL' SPECIAL SERVICE OBSERV  510 610 6610 6666 693 696 697 637	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSENGR TIME HR 1/10	LATITUDE 4430	CARD TYPE  SID OBS SID OBS SID OBS SID OBS SID OBS SID OBS SID OBS SID OBS SID OBS SID OBS SID OBS SID OBS SID OBS	DEPTH (m)  0000 0010 0020 0024 0030 0047 0050 0075 0095	MARSDEN SQUARE 10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	STATION TI IGMTI MO DAY H 06 06 2  FER	ME   1225   1   125   1   1   1   1   1   1   1   1   1	967  BARCO (mbst (mbs 24 A-T)  0 0 0 8 3 3 4 4 6 0 0 0 P 7 3 P	CRUISE   100	STATION NUMBER OI 3 MP. 'C WET BULB O 72	VIS. COOR 6 6 A D M. M. 103 100 119 119 119 119 119 119 119 119 119	DEFTH TO SOLUTION NO. 085. DEFTHS 12 SOLUTION VELO. 144.144.144.144.144.144.144.144.144.14	MAXX DEPTH OF THE PROPERTY OF	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSENGE TIME HR 1/10	4430 CAST NO.	CARD TYPE  STD OBS STD	DEPTH (m)  0000 0000 0010 0020 0024 0030 0047 0050 0075 0095 0100 0125	MARSDEN SQUARE 10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	STATION TI GMT1  MO DAY H  06 06 2  TER	ME   N.   N.   N.   N.   N.   N.   N.   N	967  BARCTE (mb)  24  A-T  0  0  8  3  4  6  0  0  7  7  7	CRUISE 10 10 10 10 10 10 10 10 10 10 10 10 10	STATION NUMBER OF 15 MP. 'C WET BULB O 72	vis. do not not not not not not not not not no	DEPTH TO OCES. SOLUTION NO. OCES	MAX. DEPTH OF SMFL' 11 SPE OBSERV 11	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSENGE TIME HR 1/10 22- 22- 22- 22- 22- 22- 22-	4430 4430 CAST NO. 55 57 77	CARD TYPE  STD OBS STD	DEPTH (m)  0000 0000 0010 0020 0024 0030 0047 0050 0075 0095 0100 0125 0144 0150	MARSDEN SQUARE  10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	STATION TI IGMTI MO DAY H O DAY H TEANS DIR.  3289 3289 32890 3291 3292 32927 3324 34002 3457 3416 3424P 3430 3443 34526	ME   N. R.1710   Settle   S12   SIGMAN   S12   S12   S12   S12   S12   S12   S13   S14   S	967 BARRETE (mbs) 24 A-T 0 0 8 3 3 4 6 0 0 0 7 3 7 2 5 6	CRUISE NO. 10  DATE TO THE NO. 110  AND AIR TE NO. 120  AND AIR TE NO. 120  AND AIR TE NO. 120  O 1826  O 0 1936  O 0 1988  O 0 1692  O 0 0 972  O 0 0 813	TATION NUMBER 01 01 3 MP. 10 00 00 00 00 00 00 00 00 00 00 00 00	VIS. COOR 6 6 A D. M. M. 103 D O O O O O O O O O O O O O O O O O O	DEPTH TO OCES. SOLUTION NO. OCES	MAXX. DEPTING SYMPL' 11 SPECOBSERV  10610 610 610 6666 667 637 637 631 610 622 6567	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSENGE TIME HR 1/10	4430 4430 CAST NO. 55 57 77	CARD TYPE  STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS	DEPTH (m)  0000 0010 0020 0024 0030 0047 0050 0075 0095 0100 0125 0144	MARSDEN SQUARE 10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	STATION TI IGMTI MO DAY H 06 06 2  FER	ME   N.   N.   N.   N.   N.   N.   N.   N	967  BARCO METER (mb) (mb) (mb) (mb) (mb) (mb) (mb) (mb)	CRUISE   100	STATION   COLUMN	VIS. COOR 66 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	DEPTH 10 10 2834 NO. OBS. DEPTHS 12 144 144 144 144 144 144 144 144 144	MAXX DEPTH OF STAPPL 11 SPECOSSERV 11 SPECOS	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	CODE 6 EV 6 EV 6 EV 6 EV 6 EV 6 EV 6 EV 6	4430  4430  CAST NO. 55  57  77	CARD 1/10 OSS STD	DEPTH (m)  0000 0010 0020 0024 0030 0047 0050 0075 0095 0100 0125 0144 0150 0193 02200 0250	MARSDEN SOUVARE 10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	STATION TI (GMT)  MO DAY H  O DAY H  TEANS DIR.  3289 32890 3291 3292 32927 3324 3400 3443 3402 3457P 3416 3424P 3430 3443 3456 34769 3477	SIGMAN   S	967  BARTE (mb)  24  0008  833  460  00P  73P  725  635  00	CRUISE   100	OT2   OT3	νις, cooe 6 Δ D 10 <sup>3</sup> 2000	DEPTH 10 NO. 28 34 WELCO 10 NO.	MAXX, DEPTH OF STAPPL OF S	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSENGR TIME HR 1/10  22- 22- 22- 22- 22- 22- 22- 22- 22- 2	CAST 7 7 7 7 7	CARD TYPE  STD OBS STD	DEPTH (m)  11/10  0000 0000 0010 0020 0024 0030 0047 0050 0071 0075 0193 0200 0125 0144 0150 0193 0200 0250 0250 0300	MARSDEN SQUARE 10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	STATION TI GMT1  MO DAY H  06 06 06 4  TER	SIGMAP   S	967 8ARCE (mbb) 244 000 833 480 00P 73P 7256 3350 444	CRUISE   100	STATION   COLUMN	VIS. COOR OF THE PROPERTY OF T	DEPTH 10 10 28 34 4 12 14 14 14 14 14 14 14 14 14 14 14 14 14	MAXX. DEPTH OF STAPE 1  11  SPECIAL STAPE 1  610  666 693 696 697 637 631 610 666 677 637 637 637 637 637 637 637 637	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	CODE 6 EV 6 EV 6 EV 6 EV 6 EV 6 EV 6 EV 6	CAST 7 7 7 7 7	CARD   1/10	OCCUPIE (M)  0000 0000 0010 0020 0020 0047 0050 0125 0144 0150 0193 0200 0250 0250 0308 0400	MARSDEN SQUARE 10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	STATION TI GMT I G	ME   N.   N.   N.   N.   N.   N.   N.   N	967 8ARCE (mb) 24 24 00 00 88 33 48 00 00 77 77 25 56 35 50 44 48 88	CRUISE   100	STATION   COLUMN	VIS. COOFF 6	DEPTH 10 10 10 10 10 10 10 10 10 10 10 10 10	MAXX. DEPTH OF STAPP.  11  SPECIAL SPE	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSENGR TIME HR 1/10  22- 22- 22- 22- 22- 22- 22- 22- 22- 2	4430  4430  CAST  FOR NO. 77  77  77	CARD 1/10 DE 1/10 DE STD OBS	DEPTH (m)  0000 0000 0010 0020 0024 0030 0047 0050 00125 0144 0150 0193 02200 0388	MARSDEN SQUARE 10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	STATION TI IGMT!  MO DAY H  06 06 2  FER	SIGMAN   S	967 8ARCT (mbs) 244 A-T 0008 334 600P 737 256 350 448 881	CRUISE   100	STATION   COLUMN	vis. cook 6 6 A. D	DEPTH 10 10 2834	MAXX. DEPTH OF STARPLY  11  STARPLY  11  SPECIAL STARPLY  11  SPECIAL STARPLY  11  SPECIAL STARPLY  11  SPECIAL STARPLY  11  11  11  11  11  11  11  11  11	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSINGE HR 1/10  22: 22: 22: 22: 22: 22: 22: 22: 22: 2	4430  4430  CAST  FOR NO. 77  77  77	CARD 1/10 DE 1	DEPTH (m)  0000 0000 0010 0020 0020 0027 0050 0075 0095 0100 0125 0144 0150 0193 0200 0250 T0290 0388 0400 0500 T0584	MARSDEN SQUARE 10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	STATION TI GMT1  MO DAY   1  06 06 2  IER	ME   NET   N	967 BARRETO DO DE BARRETO DE BAR	CRUISE   100	STATION   COLUMN	VIS. COORD   VIS. N. 103   VIS. N. 103   VIS. N. 103   VIS. N. 103   VIS. N. 103   VIS. N. 103   VIS. N. 104   VIS. N. 104   VIS. N. 105   VIS	DEPTH 10 10 10 10 10 10 10 10 10 10 10 10 10	MAXX. DEPTH OF SMPL.  11  SPECIAL SPEC	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSINGE HR 1/10  22: 22: 22: 22: 22: 22: 22: 22: 22: 2	4430  4430  CAST  7  7  7	CARD TYPE  STD OBS	DEPTH (m)  11/10  0000 0000 0010 0020 0024 0030 0047 0050 0125 0144 0150 0193 0200 0250 0308 0400 0388 0400 0500 T0584 0600 07700 T0785	MARSDEN SQUARE 10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	3289 3289 3289 3289 3289 3289 3291 3292 3291 3292 3292 33402 34576 3424P 3430 3443 34526 3477 3477 3477 3477 3477 3477 3477 347	SIGMAP   S	967  BARCE (mb)  24  A-T  0008  334  600  07  3P  725  635  044  888  1335  66	CRUISE   100	574 TION NO. 10 TO 12 TO	0000 0000	DEPTH 10 10 28 34 4 12 14 14 14 14 14 14 14 14 14 14 14 14 14	MAXX. DEPTH OF STARPL 1  11  SPECIAL STARPL 1  610  6610  6610  6666  693  696  677  637  731  772  779  777  779  779  779  779  77	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSENGE HR 1/10  22: 22: 22: 22: 22: 22: 22: 22: 22: 2	4430  4430  CAST  7  7  7	CARD 1/10 05N 0.5N 0.5N 0.5N 0.5N 0.5N 0.5N 0.5N	DEPTH (m)  0000 0000 0010 0020 0024 0030 0047 0050 0125 0144 0150 0193 0200 0250 07584 0600 07085 0800 07085 0800 07085 0800 07085 0800 07085 0800 07085	MARSDEN SQUARE 10° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1° 1°	STATION TI GMT I G	ME	967 BARCE (mb) (mb) 0008 334 800P 73P 256 356 566 566	CRUISE   100	STATION   COLUMN	VIS. VIS. VIS. VIS. VIS. VIS. VIS. VIS.	DEPTH 10 10 28 34 4 10 12 12 12 12 12 12 12 12 12 12 12 12 12	MAXX. DEPTH OF THE PROPERTY OF	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97
CTRY ID.	MESSENGE HR 1/10  22: 22: 22: 22: 22: 22: 22: 22: 22: 2	4430  CAST  FOR TOTAL TO	CARD 1/10 05N 0-6	DEPTH (m)  1/10  4829 W  DEPTH (m)  0000 0000 0010 0020 0024 0030 0047 0050 0075 0193 0200 0125 0144 0150 0193 0200 0750 0750 0750 0750 0750 0750 0750	MARSDEN SQUARE 10' 1' 10' 1' 10' 1' 10' 1' 10' 1' 10' 10	STATION TI GMT1  MO DAY   1  06 06 2  IER	SIGMAP   S	967 BARCE (mbs 24 A - 1 0 0 0 8 3 3 3 4 8 6 0 0 P 7 3 P 7 2 5 6 3 5 0 0 4 4 8 8 8 1 3 3 5 6 5 6 6 7	CRUISE   100	STATION   COLUMN	vis. 1000 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	DEPTH 10 MOD. 28 34 4	MAXX. DEPTH OF STARPE 1  11  STARPE 1  510  610  666  693  696  667  763  772  779  779  779  779  779  779  77	OBS DIR 26 CIAL ATIONS	ERVATIONS HIGH PER S 2 2	THER CODE	7 8	NO3-N	S1 O4-S1	OO97

REFERENCE SHIP	LATITUDE 1/10	1	GITUDE NOCE	MARS SQUA	DEN ARE	STATION (GW	TIME TI HP,1/10	YEAR	CRUISE NO.		DR'S TION MBER	DEPTH TO BOTTOM	MAX. OEPTH OF S'MPL"	OB'	WAVE SERVATION	ONS	WEA THER COOK	COL	DES		- 5	NODC TATION TUMBER
318016 EV	4428 N	_	815 W	149	48	06 07	006	1967		1001	4	3237	08	26	3 2		X1	4	5			0098
31,0019 -11		,	, ,		WA	TER	WIND	BAR	0 A	IR TEMP	°C VIS	NO.	SPE	CIAL								
					COLOR	TRANS. D	IR. SPEE	D MET	ER C		WET COD		OBSERV									
				-	COUL		FOR	-	-	-		1.3	-									
(						1	9 51	2   25	1 0	67	056 6	12			_	-	-					
MESSENGR TIME OF		ARO YPE	OEPTH Im)	ī	°c	s •/4	. 511	SMA-T	SPECIFIC ANOM	VOLUME 4LY-110 <sup>2</sup>	₹ △ 0 0YN. A x 10 <sup>3</sup>	A. 1 1/51	OCITY	02 ml/	PO4		1014L-F			03-N g - ot/1	SI O4→Si µg - at/l	
											1				ĺ			1	-			
,		STO	0000		452	3295		612	001	8986	000		663									
006	0	BS	0000		452	3294		612					663									
		STD	0010		226	3299		634	001	6980	001		+568									
006		BS.	0017		137	3295		640	001		003		+529 +538									
		STD	0020		153	3302 3320		644 656		5952 4838	003		+559									
201		STD	0030		190 201	3329		663	001	4000	000		+566									
006		85 S <b>T</b> D	0050		174	334		674	001	3138	007		+558									
006		BS	0056		173	3344		677	001	2150			559									
000		STD	0075		223	3359		682	001	2444	011	0 14	+585									
006		BS	0076		225	335		682				14	4586									
000		STD	0100		230	3380	) 2	701	001	0618	013		+596									
006	0	BS	T0118	0	234	3396	6 2	714				1 4	+603									
		STD	0125	0	245	3404	. 2	719	000	8937	016	-	4610									
		STD	0150	0	283	342	5 2	732	000	7689	018		4633									
006	0	BS.	0151	0	284	342		733			_		4634									
		STD	0200	0	320	3441	) 2	741	000	6928	022	0 14	+659									
006	. 0	BS	0228			344																
		STD	0250		351	345		752		5913	025		4683									
		STD	0300		377	347		762	000	15019	028		4705									
006		BS	0304		379	347		763	0.00	1	032		4706 4738									
		ST0	0400		1414	348		768	000	4611	032		4753									
006		BS	T0451		1426	349		771	0.00	4426	037		4762									
		STD	0500		430	349. 349.		2771 2773		)4420 )4373		-	4783									
0.0		510	0600 †0607		438	349		773	000	, 7 ) 1 )	0 1		4784									
006		B5 5 <b>T</b> 0	0700		1430	349		773	000	)4441	046		4797									
		STD	0800		414	349		775		)4379			4806									
		BS	0838		404	349		775					4808									

	1 U DÉ	LONGITUDE	4 DC	MARSI SQUA	RE	STATION	1}	YEAR	CRUISE NO.	ORIGINA S	TOR'S TATION UMBER		OEPTH TO BOTTOM	MAX OEPTH OF S'MPL'S	0826	WAVE RVATION		THER CODE	CLOUD CODES			NOOC STATION NUMBER
0. 54 66	1/10	04802 1	-	10'		06 07	021	1967	-	_	015	$\rightarrow$	3548	10		3 3		×1	4 8			0099
16 EV   442	26 N	04002	*	147	WAI		WIND	-	-	AIR TEA		ΤŤ	NO.		,	,						
				- 1	COLOR	<u> </u>	5981			DRY	WET	CODE	OBS. DEPTHS	OBSERV								
					CODE	TRANS DI	FOR	CE (mb	s1 E	ULB	BULB		DEPTHS									
				Γ		2	1 51	2 24	7 0	72	06	6	12	<u> </u>								
MESSENGR CAS TIME OF NO HR 1/10	T CARE		I (m)	т	*c	5 */.	. SI	GMA-T	SPECIFIC	VALY-X1	M E 2	∑ D YN. M. x 10 <sup>3</sup>	. VEL	OCITY	O 2 ml/l	PO4-1		OTAL-P pg - 01/1	NO2-N ug - ot/1	NO3-N vg = al l	51 O4= ug = a1	
						1	1		١		.		1	. 2.			1					
	51		-	_	388	3279		606	00	958	0 (	0000		634								
021	089				388	3278		606	00.	0.27	2 ,	0019		634								
	S.				242	3280		620		1824 1712	_	0017		528								
	51				135 096	3285 3289		632	00.	1112	9 1	1051		511								
021	0B9				086	3296		644	00	1602	2 (	0053		509								
	S.	_			045	3322		667		1379		0083		497								
0.31	OB:				045	3322		667	00.					497								
021 021	0B:		74		654	3430		696						775								
021		ro 00			662	3432		696	00	1119	4	0114	14	779								
021	ов:	-	98		781	3456		698					1 4	832								
021		-	00	0	763	3454	. 2	699	0.0	1095	4	0142	14	825								
			25	0	597	3427		700	00	1082	1	0169		760								
021	0B:	5 01	48	0	538	3422		2703						740								
	S	TD 01	50	0	549	3425		2705	00	1042	5	0196		745								
021	OB	5 01	97		716	3477		2724						826								
	-		00		709	347		2725		0864	_	0243		+824								
	-		50		606	347		2739	00	0735	6	0283		+791 +776								
021	ОВ				550	347		2746	0.0	^ <i>(</i>		0318		+ / / 6 + 7 7 7								
			00		550	3478		2 <b>7</b> 46 2 <b>7</b> 59	00	0667	2	0210		4789								
021	ОВ	-	90 00		539 536	349		2760	0.0	0551	1	0379		4790								
			500		503	349		2767		0493	-	0432		4793								
0.21	0 B				479	349		2771	00					4797								
021			000		473	349		2771	0.0	0460	19	0479	9 14	4798								
		,	700	_	1444	349		2773		045		0525		4802								
021	08			_	429	349		2774	- 0				1	4806								
021			300		421	349		2775	00	044	8.	0570	0 14	4809								
			900		405	349		2775	0.0	0439	7	0614	4 1	4819								
			000		395	349	4	2777	00	0436	9	065		4831								1
021	08		046	0	393	349	35	2776					1	4838								

																	_		
CTRY ID.	SHIP	LATITU	DE L	NGITUDE	MARSDEN SQUARE	STATION TI (GMT)		YEAR		ATOR'S TATION IUMBER	DEPTH TO BOTTO	MAX. DEPTH OF S'MPL'S	085	WAVE ERVATIONS	WEA- THER CODE	CLOUD CODES			NODC STATION NUMBER
318016	EV	4423		4748 W	149 47	06 07 0	36 1	967	10	016	3566	1	27	2 2	x1	X 9	1		0100
					COLO	TRANS. DIR	SPEED	BARO	R DRY	WET CO		SPEC OBSERV							
					CODI	22	S14	24	-	106 6	12	-							
	MESSENGR TIME		CARD	DEPTH (m	1 1 10	5 %.	SIGM	, _	SPECIFIC VOLU	ME & A	sc	UND	02 ml/l	PO <sub>4</sub> -P	TOTAL-P	NO2-N	NO3-N	5104-5	
	HR 1/10		TYPE	-		-			ANDMALY-XII	X 10	VEI	OCITY		μg - α1/I	1/10 - gu	ug = 01/1	µg - 01/1	νg - α)/	1
		' '	STO	0000		3496	264		001547	8 000		989		I			I	1	'
	036	6	08S ST0	0000	1253	34962 3501	264 265		001531			+989 +995							
	036	6	STC OBS	0020 0025	1263 1269	3509 35139	265		001494	5 003		001							
	036	6	STD OBS	0030		3524 35463	266 267		001424	9 004		011							
	036	6	STO	0050		3546 35391	267 268	77	001297	6 007		022							
	036		STC OBS	0075	1245	3539 35385	268	3.2	001255	3 010	4 1	007							
	0.5(	ь	STO	0100	1218	3537	268	36	001225		5 1	002							
	036	6	ST0	0125	0906	3510 34916	270	06	001092		14	935 892							
	036	6	STC OBS	0150 0197	0825	3490 34732	270 270	) 5	001042		14	891 868							
			STO STO	0200 0250	0826 0845	3475 3500	270		001048 000902			869 888							
	036	6	0BS ST0	T0293	0862 0834	35084 3506	272 272		000849	8 033		902 892							
	036	6	OBS STC	0390	0529 0525	34857 3486	275		000589	7 040		784 784							
	936	6	ST0	0500 0583		3487 34872	276		000547			785							
	230	5	STO	0600	045 <b>4</b> 042 <b>8</b>	3487 3488	27 <i>6</i> 27 <i>6</i>		000516			788 794							
			310	0,00						0 0 0		803							
	0.34	4	STO	0800	0409	3489	277		000469	7 061		005							
	036	6	085 5 <b>T</b> 0	T0819 0900	0406 0402	34895 3490	277 277	72 73	000466	0 066	3 14	805							
			085 ST0 ST0	70819 0900 1000 1100	0406 0402 0398 0393	34895 3490 3491 3492	277 277 277 277	72 73 74 75		0 066 4 070	14 3 14 9 14 5 14	817 832 847							
	036		085 STD	10819 0900 1000	0406 0402 0398	34895 3490 3491	277 277 277	72 73 74 75	000466 000462	0 066 4 070	14 3 14 9 14 5 14	817							
TRY ID.			OBS STO STO OBS	T0819 0900 1000 1100 1125	0406 0402 0398 0393 0392 MARSDEN SQUARE	34895 3490 3491 3492 34926	277 277 277 277 277	72 73 74 75 76	000466 000462 000458	0 006 4 070 6 075	3 14 9 14 5 14 14	817 832 847 851	OBSE	WAVE ERVATIONS	WEA- THER	CLOUD			NODC STATION NUMBER
TRY ID.	O 44	·	085 STD STD OBS	T0819 0900 1000 1100 1125	0406 0402 0398 0393 0392	34895 3490 3491 3492 34926	277 277 277 277 277	72 73 74 75 76	000466 000462 000458	0 066 4 070 6 075	14 3 14 9 14 5 14	817 832 847 851 MAX. DEPTH OF S'MPL'S	OBS		THER				NODC STATION NUMBER 0101
TRY ID.	O 44	LATITUI	085 STD STD OBS	T0819 0900 1000 1100 1125	0406 0402 0398 0393 0392 MARSDEN SQUARE 10° 1° 149 47	34895 3490 3491 3492 34926 STATION TI IGMTI MO DAY HI 06 07 C	277 277 277 277 277 277	72 73 74 75 76 YEAR .967	000466 000462 000458: CRUISE S NO. 100	0 066 4 070 6 075 TATION IUMBER	143 3 14 9 14 5 14 10 80170A 3795	MAX. DEPTH S'MPL'S	OBSE DIR. 27	HGT PER SE	THER	TYPE AM	T		STATION
TRY ID.	O 44	LATITUI	085 STD STD OBS	T0819 0900 1000 1100 1125	0406 0402 0398 0393 0392 MARSDEN SQUARE 10° 1° 149 47	34895 3490 3491 3492 34926 STATION TI IGMTI MO DAY HI 06 07 C	277 277 277 277 277 277	72 73 74 75 76 YEAR	O00466 O00462 O00458 ORIGINI CRUISE S' NO. N	0 066 4 070 6 075 TATION IUMBER	143 3 149 9 14 5 14 10 80110M 3795	MAX. DEPTH S'MPL'S	OBSE DIR. 27	HGT PER SE	THER	TYPE AM	7		STATION
ODE NO.	O 44	4420	085 STD STD OBS	T0819 0900 1000 1100 1125	0406 0402 0398 0393 0392 MARSDEN SQUARE 10° 1° 149 47	34895 3490 3491 3492 34926 STATION TI IGMTI MO DAY HI 06 07 C	277 277 277 277 277 277 277 277	72 73 74 75 76 YEAR 967 BARD METER (mbs)	O00466 O00462 O00458 ORIGINI CRUISE S' NO. N	0 066 4 070 6 075  ATOR'S TATION UMBER D17 AP. TO WET BULB 106 6	3 14 3 14 9 14 5 14 10 80 170 A 379 5 NO. 085. DEPTHS	MAX. DEPTH S'MPL'S	OBSE DIR. 27	HGT PER SE	THER	TYPE AM	NO <sub>3</sub> -N po - oi/l		O101
TRY ID.	SHIP CODE	LATITUE 4420	OBS STD STD OBS	T 08 19 09 00 10 00 11 00 11 25  DINGITUDE 4 735 W	0406 0402 0398 0393 0392 MARSDEN SQUARE 10° 1° 149 47 CODE	34 8 9 5 34 9 0 34 9 1 34 9 2 34 9 26 STATION 11 IGMTI MO DAY III O6 0 7 C TER w TERNS DIR. 2 2 2	277 277 277 277 277 277 277 277 277 277	72 73 74 75 76 YEAR .967 BARD METER (mbs) 241	O00462 000458  ORIGIN/ CRUISE 5' NO. 100 ARI TER FULL FULL FULL FULL FULL FULL FULL FUL	0 066 4 070 6 075  ATOR'S  TATION UMBER  D17  AF. C WET SEULB  106 6	DEPTH TO BOTTOM 3795 NOS. DEPTH 12	#817 #832 #847 #851 MAX. DEPTH OF S'MPL'S 12 SPEC OBSERV.	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
TRY ID.	SHIP CODE	LATITUE 4420	OBS STO STO OBS	T 08 1 9 0 9 0 0 1 0 0 0 0 1 1 2 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0406 0402 0398 0393 0392	34 8 9 5 3 4 9 0 3 4 9 1 3 4 9 2 3 4 9 2 6 6 7 1	277 277 277 277 277 277 277 277 277 277	72 73 74 75 76 YEAR 967 BARD METER (mbs) 24 1	000462 000458  ORIGINA CRUISE 5: NO. NO. NO. NO. NO. NO. NO. NO. NO. NO.	0 0 6 6 0 7 5	DEPTH TO BOITON 3795 NO. OBS. DEPTH 12	MAX, DEPTH OF S'MPL'S 12 SPEC OBSERV.	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
TRY ID.	SHIP CODE  EV  MESSENGR TIME 0  HR 1/10	4420	OBS STO STO OBS LV100 N O	T0819 0900 1000 1125  DEFTH IM 0000 0010 0010 0020	0406 0402 0398 0393 0392	34895 3490 3491 3492 34926 STATION TI IGMII MO DAY HI 06 07 C 11E8 W 11E8 W 222 5 °.4.	2777 2777 2777 2777 2777 2777 2777 277	72 73 74 75 76 967 8ARD METER (Date)	O00462 000458  ORIGIN/ CRUISE 5' NO. 100 ARI TER FULL FULL FULL FULL FULL FULL FULL FUL	0 066 4 070 6 075  ATOR'S TATION UMBER D17 WET CUMP WET C	144 3 144 3	MAX. DEPTH OF STMPL'S SPECOBSERV.	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
ODE NO.	SHIP CODE	4420	CARD TYPE  STO OBS  CARD TYPE  STO OBS  STO OBS STO OBS STO OBS STO	T0819 0900 1000 1100 1125  DINGITUDE 1/1/10 4735 W	0406 0402 0398 0393 0392	34 8 9 5 34 9 0 34 9 1 34 9 2 34 9 26 STATION TILIGMTI MO DAY RI TERN DIR. 1820 DIR. 34 9 2 34 9 1 5 34 9 1 34 9 0 1	2777 2777 2777 2777 2777 2777 2777 277	72 73 74 75 76 8ADD METER (mbs) 24 34 46 66	ON0466 000462 000458  ORIGIN. CRUISE S. NO. 100 AB TER. F. DRY BULB 7 111  SFECIFIC VOLUMANOMALY-115 001561 001527 001512	0 066 4 070 6 075  ATOR'S TATION'S TATION'S TATION'S TO TO TO TO TO TO TO TO TO TO TO TO TO T	14 3 14 9 14 14 14 14 14 14 14 14 14 14 14 14 14	#817 #832 #847 #851   MAX. #851   12   SPECO   OBSERV.   1985   9985   9979   9977   9982	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
ODE NO.	SHIP CODE  EV  MESSENGR TIME 0  HR 1/10	4420	CARD TYPE  STOODS  CARD TYPE  STOODS  STOODS  STOODS  STOODS  STOODS  STOODS  STOODS	T0819 0900 1000 1100 1125  DEFITH IM 0000 0010 0020 0020 0030 0050 0051	0406 0402 0398 0393 0392	34895 3490 3491 3492 34926 STATION 11 IGM11 MO DAY HI 06 07 C 11ER W 11ENNS DIR. 11ENNS DIR. 3491 3491 3491 3490 3496 3519 35204	2777 2777 2777 2777 2777 2777 2777 277	72 73 74 75 76 967 8ARD METER (mbs) 24 44 44 46 68 88	O004662 000458  ORIGINAL CRUISE S' NO. N 100 AIR TEN BULB 7 111  SPECIFIC VOLUM ANOMALY-115  001561 001527 001512 001488 001382	0 066 4 070 6 075  ATOR'S TATION IUMBER D17 106 6 801 106 6 9 000 001 4 003 7 004 1 007	14   14   15   14   15   16   16   16   16   16   16   16	## 817	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
TRY ID.	SHIP CODE  EV  MESSENGE TIME OHR 1/10  0 6 2	CAST NO. 2	CARD TYPE  SID OBS  CARD TYPE  SID OBS  SID OBS  SID OBS  SID OBS  SID OBS  SID OBS  SID OBS  SID OBS	T0819 0900 1000 1100 1125  DEFTH Im 0000 0010 0020 0020 0026 0030 0050 0051 0075	0406 0402 0398 0393 0392 10° 1° 149 47 Color Cobe 1233 1233 1211 1200 1199 1207 1238 1238 1239 1249	34895 3490 3491 3492 34926  STATION TI IGMII  MO DAY HI  TRANS DIR.  22  \$ '.'.  3492 3491 3491 3491 3491 3496 3519 3520 35407	2777 2777 2777 2777 2777 2777 2770 662 1 1IND STELLO STELL	772 774 775 776 967 967 8ARDD METER (mbbil) 247 247 848 848 848 849 849 849 849 849 849 849	ON0466 000462 000458  ONIGINI CREUSE S' NO. N 100  AN TEN ON SH TON ANOMALY-STE O01561 001561 001527 001488 001382 001261	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	14 14 15 14 14 14 14 17 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	8817 8832 8847 8851 MAX. DEPTH OSSERV  12  SPECOSSERV  985 9979 977 9985 9999 9008	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
ODE NO.	SHIP CODE EV	4420	CARD TYPE  SIDOBS  STOODS  CARD TYPE  SIDOBS  SITOODS  SITOODS  SITOODS  SITOODS  SITOODS  SITOODS  SITOODS  SITOODS  SITOODS  SITOODS  SITOODS  SITOODS  SITOODS  SITOODS	T0819 0900 1100 1125  DORGITUDE 1101 4735 W  DEPTH Im 0000 0010 0020 0010 0020 0051 0075 0078 0100 0104	0406 0402 0398 0393 0392	34895 3490 3491 3492 34926  STATION TI IGMII  MO DAY HI 06 07 C  ITER  22  S '-4.  3491 3491 3491 3491 3496 3519 35204 3539 35407 3545	2777 2777 2777 2777 2777 2777 2777 277	72 73 74 75 76 8ARD METER (mbs) 24 34 46 66 66 68 99 82 83 83 84	ON0466 ON0462 ON0462 ON0462 ON0468 ON0462 ON0468 ON0462 ON	0 066 4 070 6 075  ATOR'S TATION TUMBER D17  WET CO BULB 106 6 107 9 000 1 003 7 004 1 007 6 010	14   14   15   16   16   16   16   16   16   16	8817 8832 8847 8851 MAX. MAX. MAX. STRESS STRESS STRESS STRESS 985 997 9977 9985 9977 9987 9977 9980 9999 008	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
ODE NO.	SHIP CODE EV	4420	CARD TYPE  SIDOBS  CARD TYPE  SIDOBS	T0819 0900 1100 1125  DEFTH In  0000 0010 0020 0026 0030 0051 0075 0078 0100 0104 0125 0150	0406   0402   0398   0393   0392   10°   1°   1°   1°   1°   1°   1°   1°	34895 3490 3491 3492 34926 STATION 11 MO DAY HI 06 07 C 158 w 118ANS DIR. 3491 3591	277 277 277 277 277 277 277 277 277 277	72 73 74 75 76 967 967 98ARDEFE (mbail 247 488 888 99 344 344 347 357	ON0466 000462 000458  ONIGINI CREUSE S' NO. N 100  AN TEN ON SH TON ANOMALY-STE O01561 001561 001527 001488 001382 001261	0 0 0 6 4 0 7 5  ATOR'S TATION UMBER DD17  AFP. C WET CONN. 100 9 000 1 007 6 010 9 013 2 017	14   14   14   14   14   14   14   14	8817 8832 8847 8851  MAX. DEFINITION OF THE PROPERTY OF THE PR	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
ODE NO.	MESSENGE   EV   MESSENGE   11ME   1710   062   0	4420	CARDO STO OBS	T0819 0900 11000 1125  DNGITUDE 11/10 4735 W   DEFTH Im 0000 0010 0020 0050 0050 0051 0075 0078 0100 0104 0125	0406   0402   0398   0393   0392   10°   1°   1°   1°   1°   1°   1°   1°	34895 3490 3491 3492 34926  STATION TI IGMTI  MO DAY IM  TERN DIR.  222  \$ '\  3492 34915 3491 3491 3490 3519 35204 3536 35454 3536	277 277 277 277 277 277 277 277 277 277	72 77 74 75 76 967 98ARD METER (mbs) 24 34 64 66 68 99 92 33 34 34 35 37 38	O00466 000458  ORIGINA CRUISE S. NO. 100 ART IEE 7 111  O01561: 001527: 001488 001382  001261: 001242:	0 066 4 070 6 075  ATOR'S TATION TUMBER D17 106 6 107 9 000 0 001 4 003 7 004 1 007 6 010 9 013 2 017 2 020	14   14   15   15   15   15   15   15	8817 8832 8847 8851 MAX. DEPTH OF STANFILS SPECODSERV.  12  SPECODSERV.  985 9985 9977 982 9987 9982 9999 0008	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
ODE NO.	SHIP CODE EV	CAST NO. 2	CARD TYPE  SID OBS  STOODS  N O O  STOODS	TO819 0900 11000 1125  DEFTH Im 0000 00100 00100 00100 0050 0050 0051 00758 0100 0104 0125 0155 0200	0406   0402   0398   0393   0392   10°   1°   1°   1°   1°   1°   1°   1°	34895 3490 3491 3492 34926  STATION TILER  MO DAY HI  06 07 C  15R  15R  15R  11R  122  34915 3491 3491 3491 3491 3491 3491 3491 3491	277 277 277 277 277 277 277 277 277 277	72 77 77 77 77 77 77 77 77 77 77 77 77 7	ON0466 000462 000458  ONIGINI CRUISS SINO. N  100 ANY TEN ROMAN TO 11 001561 001527 001512 001488 001382 001261 001242 001245	0 0 0 6 4 0 7 0 0 7 0 0 4 0 0 3 0 0 1 0 0 7 0 0 4 1 0 0 7 0 0 0 0 1 0 0 7 0 0 0 0 0 0 0 0	14   14   14   14   14   14   14   14	8817 8832 8847 8851  MAX. DEFINITION OF THE PROPERTY OF THE PR	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
TRY ID.	MESSENGE 11ME 0 HR 1/10 0 6 2	CAST 10 NO. 2	CARD STO OBS S	T0819 0900 11000 1125  DINGITUDE 11/10 4735 W   DEFTH Im 0000 0000 0010 0020 0050 0051 0075 0078 0100 0104 0125 0150 701	0406   0402   0398   0393   0392   10°   1°   1°   1°   1°   1°   1°   1°	34895 3490 3491 3492 34926  STATION TI IGMTI MO DAY HI IGMTI  MO DAY HI IGMTI  1 22	277 277 277 277 277 277 277 277 277 277	72 77 74 75 76 76 76 76 76 76 88 88 86 22 44 66 66 88 93 22 33 30 44 31 31 31 31 31 31 31 31 31 31 31 31 31	ON0466 ON0462 ON0458 ON	0 0 6 6 4 0 70 6 0 7 5	DEPTH	8817 8832 8847 8851  MAX. B847 8851  12  SPECODERINA 985 985 977 977 982 9987 9977 9989 008  007 018 007 9993 965 959 959 959 887	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
CTRY ID.	MESSENGE   EV   MESSENGE   IME   IME   MR 1/10   O 6 2	4420 LATITUE 4420	OBS	T0819 0900 1100 1125  DEFTH Im 0000 0010 0020 0026 0030 0051 0075 0078 0100 0104 0125 0155 0200 0300 T0155 0200 0300 T0319 0400	0406   0402   0398   0393   0392   10°   1°   1°   1°   1°   1°   1°   1°	34895 3490 3491 3492 34926 STATION 11 MO DAY HI 06 07 C 158 W 118ANS DIR. 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3520 3536 3518 3527 35256 3518 3518 3518 3619	277 277 277 277 277 277 277 277 277 271 262 264 265 265 265 265 268 268 268 268 268 268 268 268 270 271 272 272 272 272	72 77 77 77 77 77 77 77 77 8ARD METER (mbs) 2 4 6 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	O004662 000458  ORIGINA CRUISE S' NO. N 100 ARR TEN R BULB 7 111  SPECIFIC VOLUM ANDMALT—112  001561 001527 001512 001488 001382 001261 001242 001245 001229 001016	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	14   14   14   14   14   14   14   14	8817 8832 8847 8851  MAX.** DEFTH OF STREET OF	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
ODE NO.	MESSENGE 11ME 0 HR 1/10 0 6 2	4420 LATITUE 4420	CARD 17/10 OBS STO OBS	T0819 0900 11000 1125  DNGITUDE 11/10 4735 W  4735 W   DEFTH Im 0000 0010 0020 0050 0050 0051 0075 0078 0100 0104 0125 0150 0210 0250 0300 00423 0500	0406   0402   0398   0393   0392   10°   1°   1°   1°   1°   1°   1°   1°	34895 3490 3491 3492 34926  STATION TILE MO DAY MI IGMI TER  222  \$ '.'.  3491 3491 3491 3491 3491 3491 3491 349	277 277 277 277 277 277 277 277 277 277	72 77 77 77 77 77 77 77 77 77 77 77 77 7	ON0466 000462 000458  ONIGINA CRUISE S. NO. 100 AM TEN ON 1561 ON 1561 ON 1561 ON 1561 ON 1527 ON 1512 ON 1548 ON 1382 ON 1261 ON 1245 ON 1245 ON 1245 ON 1245 ON 1261 ON 1667 ON 170 ON 1667 ON 170 ON 1667 ON 170 ON 1667 ON 170 ON 167 ON 170 ON 167 ON 170	0 0 0 6 0 4 0 7 5	14	8817 8832 8847 8851 MAX. OFFICE OF STATE OF	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
ODE NO.	MESSENGE   EV   MESSENGE   IME   IME   MR 1/10   O 6 2	4420 4420 22 22 22 22 22	CARD TYPE  SIO OBS  CARD TYPE  SIO OBS	T0819 0900 1100 1100 1125  DEFTH Im 0000 0000 0010 0020 0050 0050 0050 0050	0406   0402   0398   0393   0392   10°   1°   1°   1°   1°   1°   1°   1°	34895 3490 3491 3492 34926  STATION TITIGMII  MO DAY HI  O6 07 C  222  \$ * '  3492 34915 3491 34905 3496 3519 35204 3539 35454 3536 3518 35159 3527 35256 3518 35159 3505 3496 34943 3494 3494 3494 3494	2777 2777 2777 2777 2777 2777 2777 277	72 77 74 75 76 8ARD METER (Inha) 24 34 36 36 36 36 37 38 38 38 38 38 38 38 38 38 38 38 38 38	O004662 000462 000462 000458    ONIGINAL CRUISE   S' NO.   N   OI   OI   OI   OI   OI   OI   OI   OI	0 0 0 6 4 0 7 5	14   14   14   14   14   14   14   14	## 12   SEEP   S	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
CTRY ID.	MESSENGE   EV   MESSENGE   N	4420 4420 22 22 22 22 22	OBS   STO   OBS   OBS   STO   OBS	T0819 0900 1100 1125  DEFTH Im 0000 0010 0020 0026 0030 0051 0075 00758 0100 0104 0125 0155 0200 0210 0250 0319 0400 0423 0500 0600	0406   0402   0398   0393   0392   10°   1°   1°   1°   1°   1°   1°   1°	34895 3490 3491 3492 34926  STATION TILER  MO DAY HI  MO DAY HI  IERNS DIR.  3491 3491 3491 3491 3491 3491 3491 349	277 277 277 277 277 277 277 277 277 277	72 77 77 77 77 77 77 77 77 77 77 77 77 7	ON0466 000462 000458  ONIGINA CRUISE S. NO. 100 AM TEN ON 1561 ON 1561 ON 1561 ON 1561 ON 1527 ON 1512 ON 1548 ON 1382 ON 1261 ON 1245 ON 1245 ON 1245 ON 1245 ON 1261 ON 1667 ON 170 ON 1667 ON 170 ON 1667 ON 170 ON 1667 ON 170 ON 167 ON 170 ON 167 ON 170	0 0 0 6 4 0 7 5  ATOR'S TATION  DIT  ATOR'S TATION  WET BULB  100 6  MI SAL  VI NI  NI  NI  O  O  O  O  O  O  O  O  O  O  O  O  O	14   14   14   14   14   14   14   14	8817 8832 8847 8851  MAX.**  DEFINITION OF THE PROPERTY OF THE	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
ODE NO.	MESSENGE   EV   MESSENGE   N	4420 4420 22222222222222222222222222222	OBS   STO   OBS   OBS   STO   OBS	T0819 0900 11000 1125  DNGITUDE 11/10 4735 W   DEFTH Im 0000 0000 0010 0020 0050 0050 0051 0075 0078 0100 0104 0125 0150 0210 0210 0250 0300 0423 0500 0423 0500 0600 T0643	0406   0402   0398   0393   0392   10°   1°   17   149   47   1600   149   47   17   17   17   17   17   17   17	34895 3490 3491 3492 34926  STATION TILE MO DAY HU TERN DIR. 3492 34915 3491 3491 34905 3491 3491 34905 3519 35256 3518 35159 35256 3527 35256 3527 35256 3527 35256 3527 35256 3527 35256 3527 35256 3527 35256 3527 35256 3527 35256 3496 3494 3494 3494 3494 3494 3494 349	277 277 277 277 277 277 277 277 277 277	72 77 74 75 76 76 967 967 967 967 967 967 967 968 988 988 988 988 988 988 988 988 988	ON0466 ON0600458  ORIGINA CRUISE S. NO. 100 AM TEM PRIVATE SHIP ON 1561 ON1561	0 0 6 6 4 0 7 5	14   14   14   14   14   14   14   14	## 12   SPECONSTENS   12   SPECO	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101
CTRY ID.	SHIP CODE EV EV	4420 4420 22222222222222222222222222222	OBS STO OBS	T0819 0900 1100 1125 0001000 1125 0000 00100 00100 0020 002	0406   0402   0398   0393   0392   10°   1°   1°   1°   1°   1°   1°   1°	34895 3490 3491 3492 34926 STATION TIL MO DAY HI 06 07 C 158 w 118ANS DIR. 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3491 3520 3518 3520 3518 3527 35256 3518 3527 35256 3518 361	277 277 277 277 277 277 277 277 277 264 264 265 265 265 265 265 268 268 268 268 268 268 268 270 271 272 272 272 275 275 275 277 277 277	72 774 775 76 967 967 8ARDETER (mbail 24 7 44 4 46 68 89 99 22 33 30 34 43 55 17 88 80 11 12 37 7 88 80 12 37 80 80 12 37 80 80 12 37 80 80 12 37 80 80 80 80 80 80 80 80 80 80 80 80 80	ONO4462 000462 000462 000468  ONIGINA CRUISE S' NO. N 100 AND TEN SULB 7 111  SPECIFIC VOLUM ANOMALT-112  001561 001527 001512 001488 001382 001261 001245 001229 001129 001016 0009070 0006764 000570 000570 000490 0004744	0 0 0 6 0 4 0 7 5	1	## 12   SPEECH   SPEE	OBSE DIR. 27 CIAL ATIONS	PO4-P	THER CODE  X 1	TYPE AM	NO <sub>3</sub> -N	SIO4-S	O101

REFERENCE	SHIB				, O4	MARS		STA	TION				ORIGIN	NATO	P*5		PTH DEPTH		WAVE BSER - ATIONS	NEA-				ODC ATION
TRY ID.	CODE	LATITU	DE	LONGITUDE	100	SQUA	ARE		IG M1		YEAR	CRUIS		STATI			TO OF			0.006		_		JA: BER
ODE NO.		•	1/10	1210	~	10*	1.	MO	DAY	HR.1/10	-	NO		NUM	BEK	-	S.W. S. W. S.	S DIR	HGT FEP 31		TYPE A N	-		
31801	ΕV	4302	N	05007 W		150	30	06	07	185	1967	1	10	001	8	00	75 01	28	3 2 2	Χ÷	7 8			0102
-,	1 1						WA	TER		WIND	BAS	o. L	AIR TE	EAAP.			10.   (9)	CIAL						
							COLOR	TRAN		SPEE FOR	D MET	ER	DAY	W 81.				ATION	5					
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	MESSENGE TIME	약 NO	C AR		m l	T T	*c		s ·/	SI	GMA-T		FIG ZOL		₹ Δ D N N N	4	SOUND VELOCITY	02 m		1012 t=P		NO3=N p3 + at 1	\$1 O4-\$1 µg - at 1	ρН
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	18	5	0B				522		324		628			•			14700							
	10	,		TD 003			422		321		636	0.0	167.	26	0058	8	14659							
				TD 005			167		318		656	0.0	148	12	0090	0	14551							
	18	5	08				107		318		656						14551							
	18		0.8	_			131		325		564						14539							

EFERENCE	SHIP	Ι.		T	NGITUDE	CTR	MARS SQU	DEN	STA	TION IGMT		YEAR	_	ORIGINA				EPTH TO	DEPTH		WAVE ERVATIONS		< CO			5	NODC TATION
RY ID.	Loops	1	ATITUDE 1-1		1, 10	NO.	10.		wo l		HR.1, 10		CRUISE NO.		ITATI M.UI			TTOIL	S'MPL'S	DIR.	HGT PER S	EA COD	TYPE	A 62 E		И	UMBER
31801	16 E V	4	252 N		007 W	+	150	1		07	200	1967		10	01	9	0:	348	03	27	2 4	X 4	. 7	8			0103
- 1 -0.		1				'		WAT	ER		WIND	BAR	) - L	AIR TEA	MP '	C VIS		NO.	5.05	CIAL							
								COLOR	TRAM:	S. DIR	SPEED OR FORCE	MET	R	DRY BULB	W BU	ET COD	nd 5	OBS. EPTHS		ATIONS							
										29	+	24	0 :	106	0	94 1	-	08									,
	MESSEN TIM	10	AST ON	TYPE	DEPTH	lm I	т	*c	9	٠	SIG	MA-T		KALY-XI		₹ △ C DYN, A x 10 <sup>3</sup>	м.	VELO		Q2 ml/1	PO 4+P	TOTAL			NO3-N	SLO4-Si pg - al. l	рН
					1	0		0.74	1	362	2.5	94		2076	5	0000	_	148	977								
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	-	00		085	002		-	978		+17		37	•		•			148	890								
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	7	00	(	)BS	005		0	827	34	+35	9 2 é	75						148	840								
				STD	007	75	C	819	34	+54	26	91	00	1170	2	011	5		843								
	2	00	(	085	007	79	C	817	34	+57	4 2 <i>€</i>	93							843								
				STD	010	0	C	913	34	+80	26	96	00	1124	6	014	4		886								
	2	0.0	(	BS	010	)5	C	926	34	484		97							892								
				STD	012	25	C	897	34	486		03		1064		017			885								
				STD	015			848		487		12	0.0	0982	24	019	7		870								
	2	0.0		)BS	015			832	_	487		15					_		866								
				STD	020			701		481		29	0.0	0825	1	044	4		821 815								
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DE NO.	SHIP	LATITU		DNGITUDE STORY	M ARSI SQUA	ARE		ION T		YEAP		ATION	7 7	PTH DEPTI	OBSI	WAVE EPVATIONS	WEA- THER CODE	CODES		STA	ATION
			1/10	17.10	16*			DAY H				) M BER	+	3 MITE	1	HGT PER 15	_	TYPI A M	T		J 65 B E P
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						COLOR	TRANS (m)	DIR.	SPEED OR FORCE	M €TER (mbs)	DRY	WET CO	Del UI	BS. OBSER	CIAL VATIONS						
								29	504	240	100	094 3	1	.2							
	MESSENGE	CAST	CARC	DEPTH (m)	T	*/-	,	٠	100		SPECIFIC VOLUM	1 - 1		SOUND	O <sub>2</sub> ml l	PO 4-P	TOTAL-P	NC2+N	NO3-N	3104-51	
	TIME HR 1/10	NO.	391T	00,111 ()					31314		ANOMALY-X10	x 10	3''.	VELOCITY	02 1	h8 - a.	₽Q - 0° I	ug = al,'l	уд - ah l	pg = a1.0	p to
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	204	3	STD OBS	0050 0071		505 584	34	06 188	26 26		0014388	009	1	14749							
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	2.3	Q	085	0095		610		329	2.7		0010110	0.1.	_	14764							
			SED	0125		5→7 765	344 34		27		0010319			14779							
	200	2	065	T0143	0	795		890	27			J-1		14849							
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FERENCE V ID.	SHIP	LATITU	1 10	Weltabe 1/10	10*	I.	MO		R.1, 10	YEAP ,	NO. NU	ATION I WBER	801	PTH DEPTH TO OF TOM S'MPL	OBS	VA VE ERVATIONS HOT PEK SE		TYPE A U		STA NU	ODC A TION J AVEER
ID. 40.	CODE	•	1 10	PNGITUDE	150	2U WA	MO TER	DAY H	8,1, 10 220 11NO SPEED OR	YEAR 1967 BARO-	NO. NU	ATION IMBER	15	DEPTH OF STAPE	OBSE	ERVATIONS	THER	CODES		STA NU	A TION
ID. 40.	EV	4230	1 10	1/10	150	1° 20	MO I	DAY H	2.1, 10 220 11NO SPEED	1967 BARO-	NO. NU	ATION I WAER 21 P 'C WET CO	15 NOT OFF	DEPTH OF TOM S'MPL 54 11 O. SPI BS. OBSER	0858 S DH 27	HCP PEK SE	THER	TYPE A U		STA NU	A TION JANGER
ID. 40.	EV MENSENGR	4235	1 10	1/10	150	2U WAI	MO I	DAY H	R.1, 10 220 VINO SPEED OR FORCE	BARO- METER (mbs)	NO. NU	ATION WAER	15	DEPTH OF TOM S'MPL 54 11 O. SPI BS. OBSER	0858 S DH 27	HOT PER SE	THER CODE	THEE AV	142 14	STA NU 0	A TION JANGER
ID. 40.	EV	4230	N I	© ( C 7 ★ )	150	2U WAS	MO I	DAY H	R.1, 10 220 PINO SPEED OR FORCE SUS	1967 BARO-METER (mbs) 240	NO. NU  100 AIP TEMP DPY BULB  000 SPECIFIC VOLUMANCMALY-419*	ATION   MAER   21   2   2   2   2   2   2   2   2	15 NOTED OF P	DEPTHON OF TOM O	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. NO.	EV MENSENGR	4230 CAST	N I	5007 W	150	2U WAI	MO I CO I TRANS	DAY H	8.1, 10 220 FING SPEED OR FORCE SUS	1967 BARO- METER (mbs) 240	INO. STANDON NO. NO. NO. NO. NO. NO. NO. NO. NO. N	ATION WHER  21 P 'C WET RULB  009 3	15 NI OF DEP	TO DEPTH OF TOM STMPL 54 11  G. SPI 85. OBSER*  2 SOUND	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. NO.	EV MESSENGR TIME HR 1/10	4230 CAST	CARD TIPE STD OBS STU	0000 0000 0010	150	20 WAI 20	MO   100   1	DAY H 07 . 07 . 07 . 01 . 01 . 40 . 38	220 SPEED OR FORCE SUSSIBLE S	1967 METER (mbs) 240 73-1	PUISE STAND. 1000 1000 1000 1000 1000 1000 1000 10	ATION   MAER   21   2   1   2   2   2   2   2   2	15 Ni 08 DEP	Depth   Open	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. NO.	MESSENGE TIME TIME HR 1/10	4235 CAST	CARD TIPE  STD OBS STU-STD	0000 0000 0010 0020	150	20 WAI 20	MO   100   1	DAY B 07 . V DIR. 27 400 38 36	220 SPEED OR FORCE SUSSIBLE S	1967  BARO METER (mbs)  240  73-1  73  73  844  91	TOO 4 10 10 10 10 10 10 10 10 10 10 10 10 10	ATION   MAER   21   2   1   2   2   2   2   2   2	15 000 000 04P	DEPTH OF TOM STAPE	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	EV MESSENGR TIME HR 1/10	4235 CAST	CARD TIPE  STD OBS STC OBS STD	0000 0000 0000 0000 0000 0000 0000 0000 0000	150	20 WAI COLOR CODE 2995 995 8827 786	MO   100   1	DAY MOOR V DIR. 277 40 (38 38 38 46 40)	8.1, 10 220 PERO SPEED PARCE SUS SISM 25 25 25 25 25 26	1967  BARO- METER (mbs)  246  73-7  73  82  91  96	RUISE 51/ 100 1000 AP TEMP BULB 1 069 1 069 1 069 1 000 2 1713 000 2 1910 000 2 1050 1 0019608	ATION   MBER   21   20   20   20   20   20   20   20	15 NOTE OF P	DEPTH OF TOM STAPE	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	EV NESSENCE TIME THE UTO	4230 NO	STD OBS STU	0000 0000 0010 0020 0025 0030 0050	0: 0: 0: 0: 0: 0: 0: 0: 0:	20 WAS COLOR COOK 93. 864 827 786 54	006 IER IRAN: 333333333333333333333333333333333333	DAY H DIR. 27	8.1, 10 2 2 0 7 NO 5 PEED OR 5 PEED	1967  BARO- METER (mbs)  246  73  73  82  91  96  66  47	PUISE STAND 1000 1000 1000 1000 1000 1000 1000 10	ATION   MBER   21   20   20   20   20   20   20   20	15 NO DEP DEP DEP DEP DEP P P P P P P P P P P	DEPTH OF STAPE STA	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	MESSENGE TIME TIME HR 1/10	4230 NO	SARD TIPE STD OBS STD OBS STD OBS	0000 0000 0000 0010 0020 0025 0025 0050	150 150 0:	20 WAI COLOR COOL WAI COLOR COOL COOL COOL COOL COOL COOL COO	MO   1   1   1   1   1   1   1   1   1	DAY MODAY MODAY MODEL NO. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8.1, 10 2 2 0 2 10 2 10 2 10 2 10 2 10 2 10	1967  BARO- MAETER (mbs)  240  73  73  82  91  96  66  47  49	SMESSE 51/2 NL   100  AD 1500  AD 1500  AD 1500  AD 1500  AD 1500  DPF 8ULB  ANCHAIT - 197  0021713  0021713  0021715  00117648  0011764	ATION MARER 21 9°C WEIT CO WEIT CO OO 9 3 3 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6	15 NI OF DEP	DEPTH OF STAPE   DEPTH	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. NO.	EV NESSENCE TIME THE UTO	CAST NO	STD OBS STD OBS STD OBS	0000 0000 0010 0020 0025 0035 0050 0075 0076	150	20 WAS COLUMN CO	MO   168   178   1	DAY MODE. 100 PM PM PM PM PM PM PM PM PM PM PM PM PM	25 25 25 26 26 26 27 27 27 1	1967   BARO   METER (mbs)   2460   744-T   73   75   82   91   96   66   74   90   66   74   90   90   90   90   90   90   90   9	CRUISE 51/2 NL 1000 APP TEMP 1000 APP TEMP 1000 DPP RULB 1000 0012-713 002-713 002-1910 0021050 0015764 0010645	No.   No.	15 N OF OFF OFF OFF OFF OFF OFF OFF OFF OF	DEPTH OF THE STAPP	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. NO.	MESSENCE TIME HR 1210	CAST NO	SARD TIPE  STD OBS STO OBS STO OBS STO OBS STO OBS STO OBS STO OBS STO OBS	0000 0000 0010 0020 0025 0035 0051 0075 0076	150	20 WAI COLOR COOR STANDARD TO	MO O D   FER   TRANS   S   3   3   3   3   3   3   3   3	DAY 18 007	250 S15 M S1	1967  BARO-METER (mbs)  240  73 73 75 84 91 96 65 47 90 65 70 70 70 70 70 70 70 70 70 70 70 70 70	SMESSE 51/2 NL   100  AD 1500  AD 1500  AD 1500  AD 1500  AD 1500  DPF 8ULB  ANCHAIT - 197  0021713  0021713  0021715  00117648  0011764	No.   No.	15 N OF OFF	DEPTH OF STAPE OF STA	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	MESSENGE TIME TIME TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL T	CAST NO	STD OBS STD OBS STD OBS	0000 0000 0000 0005 0075 0075 0075 0100 0100	150	20 WAS COLUMN CO	MO O D   FER   TRANS   S   3   3   3   3   3   3   3   3	DAY H 007 27 008. 27 4001 38 3344 6344 6344 6344 6344	25 25 25 26 26 26 27 27 27 1	1967  BARO- METER (mbs)  246  73  73  74  91  96  97  97  97  97  97  97  97  97  97	CRUISE 51/2 NL 1000 APP TEMP 1000 APP TEMP 1000 DPP RULB 1000 0012-713 002-713 002-1910 0021050 0015764 0010645	VIOLE   VIOL	15 N OF OFF	DEPTH OF THE STAPP	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	EV	CAST NO	STD OBS STD OB	0000 0000 0000 0010 0020 0025 0030 0051 0075 0076 0100 0125	150 150 150 150 150 150 150 150 150 150	20 WARE 120	MO 1   O 6   TER   TRANK   Tem	DAY H 007 v DIR. 27 40 40 63 44 063 44 063 44 065 55	25 25 25 26 26 27 27 27 27 27 27 27 27 27 27 27 27 27	1967  BARO-METER (MBS)  240  73  73  73  74  96  65  74  90  90  90  14	CRUISE 51/ NO. 100 AP TEMP POPY BULS 1 00° 1 00° 2 00° 2 713 00° 2 1910 00° 2 713 00° 2 1910 00° 2 713 00° 2 1910 00° 3 70° 00° 10° 3 9	STION   WET   CO   WET   CO   CO   CO   CO   CO   CO   CO   C	15 NO OFF OFF OFF OFF OFF OFF OFF OFF OFF	DEPTH OF STARP.  10 SPERS.  2 SOUND VELOCITY  14882 14882 14882 14882 14882 14884 14882 14884 14884 14884 14886 14887 14886 14887 14786 14776	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. NO.	MESSENCE TIME HR 1210	CAST NO	SARD TIPE  STD OBS STO	0000 0000 0000 0010 0020 0025 1036 0050 0051 0075 0160 0165 0165 0155 0155	150 150 0.00 0.00 0.00 0.00 0.00 0.00 0.	20 WAI COLOR COOK 17 17 17 17 17 17 17 17 17 17 17 17 17	MO 1   O 6   TER   TRANK   Tem	DAY H 007 V DIR. 27 4006 33640 4016 33640 474 4515555	25 25 25 26 26 27 27 27 27 27 27 27 27 27 27 27 27 27	1967	RUISE 51/ NL RUISE	VI   VI   VI   VI   VI   VI   VI   VI	15 NO OFF OFF OFF OFF OFF OFF OFF OFF OFF	DEPTH OF SMPL 11 OF SM	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	EV	4233	STD OBS STD OB	0000 0000 0000 0010 0020 0025 0030 0050 0075 0075 0100 0125 0125 0125 0125 0125 0125	150 150 0.00 0.00 0.00 0.00 0.00 0.00 0.	20 WALCOLOR COOR COOR COOR COOR COOR COOR COO	000 TRAME TRAME 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	GM11 V DIR. 27 400 GM2 45155599014	25 25 25 26 26 27 27 27 27 27 27 27 27 27 27 27 27 27	1967   \$400	CRUISE 51/AND 151/AND	NAME   NAME	15 NN OO O O O O O O O O O O O O O O O O	DEPTH OF STARP.  10 SPECTOR STARP.  1488.  1	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	CODE EV   MEDITION   M	4233	STD OBS STD	0000 0000 0000 0000 0000 0000 0000 0000 0000	150 150 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20 WAS COOLE TO THE PROPERTY OF THE PROPERTY O	00   TRANS   18   18   18   18   18   18   18   1	DAY H DIR. 27 4000 274 438 634 6555 590 13	25 25 26 26 26 26 27 27 27 27 27 27 27 27 27 27 27 27 27	1967   8440	CRUISE 51/2 NL   1000   AP TEMP   1000   1000   AP TEMP   1004   1006	NAME   NAME	15 NO OF OF OF OF OF OF OF OF OF OF OF OF OF	DEPTH OF STARP.  10 STARP.  54 11  50 SPERING OBSER*  14882 14882 14882 14882 14888 14822 14808 1479 1476 14840 14773 14842 14773 14842 14840 14840 14840 14877	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	CODE EV   MEDITION   M	(AS)	STD OBS STD OB	0000 0000 0000 0000 0000 0000 0000 0000 0000	150 150 00 00 00 00 00 00 00 00 00 00 00 00 0	20 WALCOLOR COOR COOR COOR COOR COOR COOR COO	S S S S S S S S S S S S S S S S S S S	DAY H DIR. 27 4000 274 438 634 6555 590 13	25 25 25 26 26 27 27 27 27 27 27 27 27 27 27 27 27 27	1967   8480-2   1967	CRUISE 51/AND 151/AND	NAME   NAME	15 NO OC 22 44 49 9 3 3 5 5 7 2 2 2	DEPTH OF STARP.  10 SPECTOR STARP.  1488.  1	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	CODE   EV	4230	CARDO N 1 10	0000 0000 0025 0025 0051 0075 0125 0125 0125 0125 0125 0125 0125 012	150 150 00 00 00 00 00 00 00 00 00 00 00 00 0	990 No. 48 No. 20 No. 2	33333333333333333333333333333333333333	007 V DIR. 27 443334040 44515559914 45559901938884	25. 15. 10 SI 5. 15. 15. 15. 15. 15. 15. 15. 15. 15.	1967   8480-0   1967	CRUISE 51/2 NL   1000   AP TEMP   1000   1000   AP TEMP   1004   1006	NAME   NAME	15 Ni Otto	DEPTH OF STARP.  10 SPECITY  1488.	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	CODE   EV	4230	STD OBS STD OB	0000 0000 0000 0000 0000 0000 0000 0000 0000	150 150 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	200 WALCOLOR TO THE TOTAL TO TH	33333333333333333333333333333333333333	1007   100	250 SISM SISM SISM SISM SISM SISM SISM SIS	1967   8480-4   1967	RUISE 51/14 N. 1000  APP TEMP 8ULB 7 004 - 713   00 2-713   00 2-1910   00 10 10 39   00 10 0 39   00 0 7588   00 0 5445   00 0 50 445   00 0 50 12	STICK   WAS   WA	15 N N N N N N N N N N N N N N N N N N N	TOM SYMPL SOUND SERVINES OBSERVIN	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	CODE   EV	4230	STD OBS STD OB	0000 (0000 n010 0020 0025 n030 0051 0075 0100 0105 0105 0105 0105 010	150 150 00 00 00 00 00 00 00 00 00 00 00 00 0	20000000000000000000000000000000000000	33 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	15 MT1	25   S   S   S   S   S   S   S   S   S	1967   8480-0   1967   240   240   1967   73   73   75   1967   74   75   1967   75   76   1967   76   76   1967   77   78   78   1967   78   78   1967   78   78   1967   78   78   1967   78   78   1967   78   78   1967   78   78   1967   78   78   1967   78   78   1967   78   78   1967   78   78   1967   78   78   78   1967	RUISE 51/NL RUISE	Name	15 N N O O O O O O O O O O O O O O O O O	DEPTHON STARP.  10 SPINIS OBSER*  14882 14882 14882 14882 14882 14888 1479 1476 14840 14840 14840 14840 14840 14847 1477 14773 14842 14772 14772 14779	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. NO.	CODE   EV	4230	CARRO TIPE STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS OBS OBS OBS OBS OBS OBS OBS OBS OBS OBS	0000 0000 0000 0000 0000 0000 0000 0000 0000	150 150 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	900 - 400 - 500 -	MO 1 1EER 1 18 AM 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	GM11	25, 100 S15M S15M S15M S15M S15M S15M S15M S15M	1967    8400   1967   2400   1960   1	RUSE   ST/ NL	STICK   MARKET   MA	15 NO DEP DEP DEP DEP DEP DEP DEP DEP DEP DEP	TOM STATE OF THE S	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
r ID.	CODE   EV	4230	10	0000 0000 0000 0000 0000 0000 0000 0000 0000	150 150 03 03 03 03 03 03 04 04 04 04 05 05 05 05 05 05 05 05 05 05 05 05 05	20 WAR 1	333333344443334444433344444333444444334444	GM11   V   V   DIR.   V   V   V   V   V   V   V   V   V	25   SISM	1967    8400   1967   1	RUSE 51/2 NU 1000	Name	15 NOOD 15 OF OF OF OF OF OF OF OF OF OF OF OF OF	DETRICTION STATE 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	CODE   EV	4230	CARRO TIPE STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS STD OBS OBS OBS OBS OBS OBS OBS OBS OBS OBS OBS	0000 0000 0000 0000 0000 0000 0000 0000 0000	150 150 000 000 000 000 000 000 000 000	900 - 47 - 900 - 9	33333344444444444444444444444444444444	GM11   V   V   DIR.   V   V   V   V   V   V   V   V   V	25, 100 S15M S15M S15M S15M S15M S15M S15M S15M	1967   8480-20   1967   240   240   1967   73   75   1967   74   75   1967   75   76   1967   76   77   77   77   77   77   77	RUSE   ST/ NL	Name   Name	15 Nord of Other 1 Nord of Oth	TOM STATE OF THE S	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. 40.	CODE   EV	4230	10	0000 0000 0000 0000 0000 0000 0000 0000 0000	150 150 03 03 03 03 04 04 04 04 04 04 04 04 04 04 04 04 04	20 WAR 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	33333553344444334444444444444444444444	GM11   DR.   27   DR.	25, 100 SISM SISM 25 SISM 25 SISM 25 SISM 25 SISM 25 SISM 26 SISM 26 SISM 27 S	1967    840-70   840-	RUSE   ST/ NL	Name	15 No oct 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	DEPTH OF START OF STA	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE
ID. NO.	CODE   EV	4230	STD OBS STD OB	0000 0000 0000 0000 0000 0000 0000 0000 0000	150 150 03 03 03 04 04 04 04 05 05 05 05 05 05 05 05 05 05 05 05 05	900 - 47 - 900 - 9	33 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	GM1 M	25. 15. 16. 25. 25. 25. 25. 25. 25. 25. 26. 27. 27. 27. 27. 27. 27. 27. 27. 27. 27	1967	CRUISE ST/MO. NLL  RICHARD STATEMENT OF TEMPORAL STATEMENT OF TEMP	Name	15 NO OF OF OF OF OF OF OF OF OF OF OF OF OF	TOM STATE OF THE S	CIAL VATIONS	PO4-P	THER CODE	7 8	142 14	STA NU	A THORE

SHIP		IDE	LONGITUDE	M A I	RSDEN UARE	STATION T	IME	YEAR	CRUISE		TION	DEPTH TO BOTTON	DEPTH OF	0.0	WAVE SERVATIO		WEA THER CODE	C	OUD		S	NODC TATION UMBER
COD	•	1/10	1/10	Ĭ 10°	1*	MO DAY	HR.1/10		NO.	NU	WREK	BOTTON	S'MPL	S DIR.	HGT PER	SEA	1 000	146	A M			
16 EV	4229	N	05007 W	150	0 20	06 08	001	1967		100	22	2195	11	27	2 2		X4	7	8			0106
-,			,		WA	TER	WIND	BARC	)- Atr	TEMP	. t	NO.	5.06	CIAL								
					COLOR	TRANS. DIR.	SPEED OR FORCE	M ETE (mbs	R DR1		WET COD	DEPTHS		ZMOITAV								
						28	506	23	7 09	4	089 1	12										,
MESSE TIM	E of NO	C AR TYP			т *С	s */	SIGA	A A - T	SPECIFIC V		₹ ∆ D DYN. N x 10 <sup>3</sup>		OCITY	0 2 ml	PO4-		OTAL-F		2-N at l	N∩3−N NO3−N	\$1 O4=\$1 hg - o1 l	рН
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1	,	51	0000 da		1021	3333		63	0023	647	0000		890									
(	001	OB:	0000		1021	33328							890									
		S	TD 0010		0890	3334		86	0021		002.		844									
			TD 0020		0788	3335		02	0019	989	004		806									
	101	QB:			0740	33362		10	0010		000		789									
			TU 0030		0728	3344		17	0018				+786									
			TD 0050		0661	3378		53	0015	113	0096	-	1767									
Ĺ	001	OB			0654	33812		57	0011		013		+765 +736									
			TD 0075		0563	3410		91	0011	.014	0130	-	+734									
	)U1	08			0556 0541	34140 3439		95 17	0009	1224	015		+735									
	V/V 1	OB:	TD 0100 S 0105		0539	34433		20	000,	224	0.20	-	736									
1	001		D 0125		0545	3451		26	0008	3402	017		1742									
			TD 0150		0552	3460		32	0007		019		+751									
	001	OB:			0554	34626		34				14	+753									
	, , ,		TD 0200		0542	3473	27	43	0006	821	043	5 14	+757									
	וטע 1	-06			0540	34744	. 27	45				14	757									
			TO 0250		0529	3479	27	50	0006	281	026	8 14	4760									
			TD 0300		0516	3483	27	54	0005	890	029	в 14	1764									
	001	08			0513	3484:	3 27	56					765									
		5	TD 0400		0494	3489		62	0005	301	035		+772									
	001	OB	S ∂+18		0489	34892		62					+773									
		5	TD 0500		0456	3490		67	0004			-	4773									
		S	0000 CT		0425	3490		70	0004	+636	045		4777									
	121	08	-		0418	3490		71					4770									
			TD 0700		0404	3490		73	0004				4785									
			TD 0800		0389	3490		74	0004	+ 281	054		4795 4799									
	11	08			0385	34901		75	0004	. 3.1.0	058		4807									
			1D 0900		0379	3491		! 76 ! 77	0004				4821									
			1000		0372	3491 3492		7.7	0004				4837									
			TD 1100		0370	3492		778	01704	+ J U 4	. 007		4845									
	1	0.8	5 1149		0370	3472	) 21	7.0				1	7047									

REFERENCE	SHIP		LATITUE	1/10	LONGI	TUDE '1/10	DRIFT	M AR! SQU			MI	M.E R.1/10	YEAR	CRUISE NO.		TATIO	4	DEPTE TO BOTTO		MAX, DEPTH OF S'MPL"		OBSE	WAVE RVATIO		T	FER .	CLOUE CODE	s		NODA SITATE BMUN	NC
3180	16 EV	+	4209		0501			150	20		_	27	1967		10	023		310	$\rightarrow$	11	+	-	2 2			(4	7 8			010	0.7
31,00	-9 -1	1	0 ,		0.0		1 1		WA			IND		1	AIR TEA			NO.	1		1	Π'	- 1	1	1			,	1		
									COLOR		DIR.	SPEED		R	ORY	WET		1 000	.   .	SPE VR32BC	CIAL /ATIO	NS.									
									CODE	lm)		FORC			ULB	BUL	-	-	+			$\dashv$									
		_									29	504	24	4 0	94	09		12	1					_				_		1	_
	MESSEN TIMI HR 1/	10 1	CAST NO.	CAR		DEPTH	(m)	T	*c	5	٠/	SIG	MA-I	SPECIFIC	ALY-I)		₹ △ D DYN. A X 10 <sup>3</sup>	A. 1	ELOC		02	mlz1	PO 4-		1OTA vg·		NO2=N µg • at/l	NO3-l			ρH
	-		1					١.				1				.		,		1						,			1	ļ	
					T D	000			112	334	-		59	002	403	8	0000			125											
	U	27		08		000			112	334			86	003	154		002			89											
					r D r D	002			899	336			09		932		004			53											
	0	27		0B:		002			836	33			23	001	,,,,	•	004.		48												
		21			TD.	003			780	33			33	001	709	6	006			10											
				-	TD	005			583	338			71		346		0092			37											
	0	27		OB.		005			571	338			74					1	47	33											
					T D	007		0	536	34	26	2	707	001	010	9	012	1	47	127											
	0	27		ΟВ.	5	007	8	0	535	34	97	2	710					1	47	28											
				S	T D	010	0	0	566	344	7	27	20	000	892	1	0149	5 1	47	46											
	0	27		08	5	010		0	569	344			722							149											
				5	TD .	012	5	_	555	345	4		727		829		016.		-	47											
					TD	015			543	346			733	000	774	0	018			147											
	0	27		0B:	_	T 0 1 5			542	346			134		_					47											
					I D	020		-	542	34			44	000	674	6	022			57											
	0	27		OB.	-	020			541	34			145			-	0 ) 5 /			158											
					TD	025			500	34			751		616		025!			748											
		<b>-</b>			ID.	030		-	474	34			756 757	000	569	9	0289			146											
	U	27		0B:	_	1031			471	34	798		765	0.00	502	7	0 3 3			773											
	0	2 7		_	TD.	040			496 498	34			766	000	1002	,	0,75			777											
	U	27		0B.	5 TD	050			480	34			769	000	475	1	0381			784											
				_	TD.	060			458	34			772		1454		043			791											
	^	27		08:		T062			453	34			772	000		•	J . J.			193											
	U	- 1			7 D	070			427	34			773	000	446	3	047			795											
					TD	080			403	34			775		435		052			301											
	n	27		OB		T082			398		922		775			-				303											
	·	_ '			τo	090			397	34			775	000	439	5	056			315											
					TD	100			395	34	-		776		440	-	061			331											
				_	τD	110			394	34			777		442		065	5 1	48	347											
				_			8		393	34			777					1													

RENCE					- L	ARSDEN	STATION T	IME		0	RIGINA	ATOR'S		DEPTH	MAX.	Test .	WAVE	WEA-	CLOUD	T	,	NODC
ID.	CODE	LATITU	DE	LONGITUDE	DRIFT SADCTE	SQUARE	(GMT)	INIE	YEAR	CRUISE	5	TATION		TO BOTTOM	DEPTH		ERVATIONS	THER	CODES		\$1	TATION
NO.	CODE		1/10	1/10	<del>'</del> + + ''		MO DAY			NO.		UMBER			S'MPL'S		HGT PER SE	-	TYPE AM		-	
18017	EV	3727	N	05024 ¥	1 1			120	1967		100			5286	15	21	0 2	X 1	0 3	ţ	I	000
						COLOR	-	VIN D	BARG	<i>)</i> • —	RY	W FT	VIS.	NO. 085.	SPEC OBSEPV	TAL ATIONS						
						COOE	TRANS. DIR.	FOR			ILB	BULB		DEPTHS								
						DT	50 21	50	8 32	9 2	78	244	8	30								
	MESSENGR TIME 0	CAST	CARE	DEPTH	(m)	т °с	5 %.	510	SMA-T	SPECIFIC	VOLU	ME S	Δ 0 N, M	500	JND	O 2 ml/l		TOTAL-P	NO <sub>2</sub> -N	NO3-N	5104-5	ρН
	HR 1/10	NO.	TYPE	- COTTA	·					ANOM	LLT-XII	2	103	VELO	CITY		μg + σ1/1	µg - at/t	µg + at/l	μg - q1/1	yg = al/l	
												-										1
			51			2606	3645		413	003	798	1 0	000		389 389							
	120	)	0B9	000		2606 2517	36448 36451		413 441						369							
			51			2508	3641		440	003	540	1 0	037		368							
	005	,	089			2508	36410	2	440						368							
			S <b>1</b>			2371	3646		485	003	117	1 0	070		337							
			OB 9			2371	36458		485	002	767	3 0	099		337 312							
			S1 0B5			2260 2260	3652 36522		522 522	002	, 0 /	ں ر	U 77		312							
			51	, .		2115	3646	2	558	002	433	ь 0	151	1.5	277							
			089			2115	36458		558						277							
			51			1973	3657		605	001	995	8 0	207		245 245							
			0B9			1973 1917	36573 3658		605 620	001	859	0 0	255		233							
			0B9			1917	36582		620	001	,	•			233							
			51			1858	3656	2	633	001	743	3 0	300		221							
			QB3			1858	36555		633				2		221							
			S1			1838	3654		637	001	713	2 0	343		219							
			0B			1838 1797	36542 3650		637 644	0.01	664	3 0	428		215							
			0B:			1797	36498		644	002				15	215							
			5			1778	3652		651	001	621	9 0	510		218							
			OB:			1778	36518		651	0.01	614	1 0	591		218							
			S :	TD 03		1763 1763	3650 36503		653	001	014		791		221							
				TD 04		1744	3648		656	001	620	6 0	752		232							
			ОВ:		00	1744	36479		656						232							
			0В:	_		1743	36453		654	0.0.1	(2)	0 0	0.10		238							
			S :			1690 1690	3633 36334		658 658	001	631	8 (	915		231							
			5	_		1560	3609		670	001	542	0 1	074		205							
			οВ:			1560	36092		670						205							
			S	TO 07		1417	3587		684	001	424	3 1	422		173							
			OB:			1417 1403	35865 35888		684						173							
			OB:			1300	35702		695						144							
				TD 08		1240	3555		695	001	318	0 1	350		127							
			OB.	5 08		1240	3554		695						127							
				TD 09		0996	3528		720	001	075	9 ]	479		054							
			QB.			0996 0824	35280 35142		720						054							
			0B:	-		0834	3517		738						007							
				TO 10		0000	3515		741	000	854	7 ]	57	5 14	996							
			οв	s 10		0800	3515		741						+996							
				TD 11		0599	3500		757	000	678	14 ]	65		+932 +932							
			OB	S 11 TD 12		0599 0513	3499! 3498		2757 2767	000	578	3.7	71		+932 +914							
			0 B			0513	3498		2767	500	, - 10	, , ,			4914							
				TO 13		0471	3497		771	000	542	8 2	77	1 1	ذ194							
			ОВ	s 13		0471	3496		2771	_		_	+		4913							
				TD 14		0460	3499		2774	000	)52]	15	82		4926 4926							
			ОВ		00	0460	3499 3500		2774 277 <b>6</b>	0.00	)50:	11	187		4926 4936							
				10 10	0.0	U443	J J U U		. , , u	000	· ~ ~ .		,		. , , ,							

REFERENCE	_			-		STATION TIM		T ONGIN	IATOR'S	T	MAX,	_	WAVE	WEA-	CLOUD	1			1
CTRY ID.	SHIP	LATITU	DE LO	NGITUDE E	MARSDEN SQUARE	IGMT)	YEAR	-	STATION	DEPTH	DEPTH OF	OBS	ERVATIONS	THER	CODES		- 5	NODC	
CODE NO.	CODE	•	1/10	1/10 E Z	10" 1"	MO DAY HE	.1/10	NO.	NUMBER	BOTTON	S'MPL"	D 19.	HGT PER SE	CODE	TYPE AMT	1		NUMBER	1
31801	7 EV	3727	N U	5024 W	114 70	07 25 1	41 1967	IIP 10	1024	5286	34	21	0 2	X1	8 3			0002	
					WAT	-	IND BAR	0-	MP. °C	NO.	SPE	CIAL							
					COLOR	TRANS, DIR.	SPEED MET		WET CO	DEPTHS	OBSERV	2 MOIT A							
						21	508 32	9 278	244 7	0.7	T								
			T	T			300   32	<del></del>		<del></del>	1		1						1.
	MESSENG!	* CAST	CARD	DEFTH (m)	7 1	s *4.	SIGMA-T	SPECIFIC VOLE	In? DIN.	M. SO	OCITY	02 ml/l	PO4-P vg - 01/1	fOTA L→P µg = a1/I	NO2-N   µg - al/l	NO3-N vg - al/1	\$1 O4~\$		ć
	HR 1/10			-	-				x 10		-		-	•	-			+	-H
					1	1	2		1 200		300		1		1		1		1
			510	0000	2610	3649 36486	2414 2414	003782	7 000		390								
	14	1	085 STD	0010	2610 2581	36486	2414	003704	7 003		385								
			STD	0020	2552	3647	2431	003630			380								
			STD	0030	2524	3646	2439	003559			375								
			STO	0050	2467	3643	2454	00342			365								
			STO	0075	2398	3641	2473	003250			352								
			STO	0100	2329	3638	2491	00308	76 034	3 15	339								
			STD	0125	2262	3635	2509	002934	40 041		326								
			STU	0150	2196	3633	2526	002779			313								
			STD	0200	2068	3627	2557	00250			287								
			STD		1944	3622	2586	00224			261								
			STO	0300	1825	3616	2612	002010			235								
			STD		1602	3604	2656	00161			184 5135								
			SID		1399 1214	3592 3579	2692 2719	001289			088								
			STD STD	0700	1049	3566	2740	000850			045								
			510	0800	0904	3553	2755	00071			007								
			510	0900	0777	3539	2763	00062			+974								
	14	-1	OBS	0978	• • • •	35274				-									
		-	STD	1000	0670	3523	2766	00059	52 159	0 14	947								
			STD		0582	3506	2764	00060	64 165	0 14	+926								
			STD	1200	0514	3494	2763	00061	16 171	1 14	4914								
	14	· 1	OBS	T1205	0511	34933	2763				4913								
			STO	1300	0493	3495	2767	00058			4922								
			STD		0475	3497	2770	00055		_	4932								
			\$ T D		0459	3498	2773	00053	91 186		4942								
	14	+ 1	OBS	T1627	0439	34991	2776	0.005.1			+955								
			STD		0421	3498	2777	00051			4968								
			STO		0390	3497	2779	00049	68 214	-	4998								
	1 4	+ 1	OBS	T2053 2500	0385 0358	34964 3496	2779 2782	00049	49 238		5004 5069								
	3.4	. 1	S10	12516	0357	34964	2782	00049	7 2 2 2 2		5072								
	14	+ 1	0BS ST0		0321	34964	2785	00048	43 263		5140								
	14	. 1	OBS	3434	0284	34939	2787	00040	-, 20,		5199								
	14	T 1	003	7474	0204	27727	2101			•	- 1 - /								

RENCE	HIP				E MA	RSDEN JARE	STATION	IME		1	ORIGINA	ATOR*S	T	DEPTH	MAX	I	WAVE SERVATIONS	w.	VEA-	CLOUD	T	- T	NODO	
10. 100		LATITU		LONGITUDE	ä 😜 📗	- 1			YEAR	CRUISI	E 51	ATION		TO BOTTOM	OF	1		TI	HER ODE	CODES			STATIO	IN.
NU.	-		1/10	1/10	10		MO DAY			NO.	+	UMBER	-		S'MPL'		HGT PER SE	1	-	TYPE A MAT				_
8017 E	V	3756	N.	05022 W	111	70 WA		188	1967				$\perp$	5303	15	20	1 2	1 >	I X	0 3			000	) 3
						COLOR		SPEEC OR	BAR	O	DRY TEM	WET.	VIS,	NO. OBS.	SPE	CIAL								
						CODE	TRANS. OIR.	FORC	[ Imb		BULB	BULB	CODE	OBS. DEPTHS	ORZEKA	ARONS								
						DT	SD 20	512	32	9 2	27	24	7	27			1							
MES	SENGR	CASI	CARD		1		1	1		****	IC VOLUA		Δ D.	sor	IND		PO a-P	TOTA		NO <sub>2</sub> -N	NO3-H	S1 O4-5		_
1 1	1/10	NO.	TYPE	DEPTH In	n)	T *C	s ·/	StC	MA-I	ANON	MALY-X10	) D	N. M.	VELC	CITY	0 2 ml/	µg = 01/4	pg -		μg - σ1/1	403-14 pg - at (t	yg - at.		Н
Tr	17+0				-			+				-		-	-				$\rightarrow$				-	_
ı	1		ST	0 0000	) (	2588	3658	1 24	28	0.0	36530	) )	000	1 15	386 -		1 1		- 1	ı			1	
	188		OBS			2588	36575		28	00.	,,,,,	0	000		386									
			SŤ			2305	3647		05	00	2924	1 0	033		319									
			OBS			2305	36465		05						319									
			ST			2186	3649		41	00	2586	7 0	060		291									
	002		OBS			2186	36490		41	00	220.11		0.05		291									
			ST OBS			2067 2067	3647 36470		72	00.	22926	b V	085		262 262									
			ST			1905	3651		18	00	18636	6 0	126		221									
			OBS	0050	)	1905	36510		18				- •		221									
			ST			1823	3650		38	00	1664	9 0	171		202									
			085			1823	36495		38						202									
			ST			1798 1 <b>7</b> 98	3650 36500		44	00.	16309	5 0	212		199									
			085 ST			1790	3652		47	00	1608	7 0	253		199 201									
			085			1790	36516		47	00.	1000	, ,	_ , ,		201									
			ST			1780	3651		49	00	15980	0 0	293		202									
			085	0150	)	1780	36510	26	49						202									
			OBS	0160		1776	36510		50						202									
			08S S <b>T</b>	0170 0 0200		1757 1752	36451 3646		51	001	15848		372		198									
			085	0200		1752	36461		53	001	17040	9 0	112		201 201									
			ST			1746	3646		54	001	15889	5 0	452		208									
			OBS	0250		1746	36460		54						20B									
			ST			1743	3645		54	001	16070	0	532		215									
			085			1743	36448		54						215									
			ST			1695	3637		59	001	1586	1 0	691		216									
			0BS	0400		l 695 l 640	36368 36230		62						216 206									
			ST			1555	3607		69	0.01	15191	1 0	846		186									
			OBS	0500		1555	36066		69						186									
			ST			1405	3582		83	001	14026	0	993	15	152									
			085	0600		1405	35821		83						152									
			ST			1264	3564		97	001	12763	3 1	127		119									
			085 5 <b>T</b>			1264 1047	35635 3536		97	001	1087	7 1	245		119 057									
			085	0800		1047	35360		17	001	1001	, 1	449		057									
			51			805	3504		32	000	9279	9 1	345		980									
			OBS	0900	) (	805	35040		32					14	980									
			ST			0653	3508		56	000	06845	<b>)</b>	426		938									
			OBS	1000		0653	35075	_	56						938									
			STI			)560	3503		65	000	)5966	o 1	490		917									
			OBS ST	1100 1200		0560 0492	35031 3503		73	000	5192	2 1	546		917 906									
			OBS	1200		0492	35025		73	000	,,170	- 1	- 40		906									
			ST			0461	3501		75	000	05001	7 1	597		910									
			OBS			0461	35008		75			-			910									
			ST			)443	3501		77	000	04860	1	646		919									
			OBS	1400		)443	35009		77						919									
			STI			)424	3500		78	000	)4768	3 1	594		928									
			OBS	1500	, (	)424	35000	21	78					14	928									

RENCE	SHIP					ž M	ARSDEN SQUARE	STATION (GM)	TIME	V		DRIGIN			DEPTH	MAX. DEPTH	OPT	WAVE SERVATIONS	WE	A- C	LOUD			NDDC STATION
1D. NO.	CODE	LATIFE	1/10	LONG	1/10 E	1 5	O. I.	MO DAY		YEAR	CRUIS NO.		TATION UMBER		BOTTOM	DF S'MPL'S	DIR.	HGT PER S		ns L	PE AMT			NUMBER
801	7 EV	3820	6 N	050	26 W	1	14 80	07 25	218	196	7 11	P 10	020		5394	15	23	2 2	×	1 (	0 3		1	000
		•					WA	-	WIND	BA	RD-	AIR TE		VIS.	NO.	SPEC	IAL							
							COLOR	TRANS. DIS	FOR	1		BULB	W ET BULB	CODI	DEPTHS	OBSERV	A TION S							
							DT	SD 2		_	12	250	240	7	27									
	MESSEN	GR CAST	CAR			$\top$		1	1		SPECIF	IC VOLU	ME S	ΔD	SD	UND		PO4-P	TOTAL-	-P NO	02-N	NO3-N	SI Da-	31
	HR 1/	CAST NO.	TYP	E	DEPTH (m	١	τ ℃	s */	SIC	SMA-T	ANO	MALY-XI	o,' D	∆ D YN. M X 10 <sup>3</sup>	VEL	CITY	03 ml/	μg - α1/I	µg - a1		- al/l	yg • a1/1	µg − 01.	
			1						_											_				
	1	,		TD '	0000		2627	3621		388	00	4032	9 0	000		391								
	2	18	08		0000		2627	3620		388						391								
			08.	-	0005		2460	3615		435	0.0	2127	7 0	057		353								
	0	04	- S - OB	TD.	0010		2456 2456	3634 3634		451 451	00	3437	/	037		355 355								
	U	04	08		0012		2463	3646		458						358								
				TD.	0020		2436	3646		466	00	3303	0 0	071		353								
			08		0020		2436	3645	6 2	466					15	353								
				TD	0030		2317	3648		503	00	2953	0 0	102		326								
			08.		0030		2317	3648 3649		503 525						326 308								
			ОВ	5 TD	0032		2157	3652		551	0.0	2497	3 (	157		289								
			08		0050		2157	3652		551	00	, ,	_			289								
				TD	0075		1924	3643		607	00	1978	7 0	213		229								
			08		0075		1924	3642		607						229								
				TO	0100		1832	3648		634	00	1723	9 (	1259		208								
			08	_	0100		1832	3648		634		1 ( ) 7				208								
				TO	0125		1795 1795	3649 3649		644 644	00	1637	9 (	301		202								
			08	1D	0125		1780	3651		649	0.0	1600	2 0	342		202								
			08		0150		1780	3650		649		1000		, , , ,		202								
				TD	0200	)	1773	3652	2	652	00	1593	7 (	421	15	208								
			08	S	0200		1773	3651		652				_		208								
				TD	0250		1757	3649		654	00	1589	7 (	501		211								
			08		0250		1757	3649		654	0.0	1587		580		211								
			08	TD	0300		1741 1741	3647 3646		656 656	00	1001	1 (	1000		215								
				TD .	0400		1696	3638		660	0.0	1583	4 (	739		216								
			08		0400		1696	3637		660						216								
			S	TD	0500		1571	3614		671	00	1502	5 (	1893		192								
			08		0500		1571	3613		671						192								
				TD	0600		1405	3584	-	684	00	1389	5 ]	038		152								
			03	5 TD	0600		1405 1220	3583 3559		684 703	0.0	1222	3 1	168		104								
			0 B		0700		1220	3559		703	00	1				104								
				Τ0	0800		1030	3536		720	0.0	1060	6	283		051								
			08		0800		1030	3535		720						051								
				TD	0900		0806	3513	_	739	0.0	0863	7	1379		981								
			08		0900		0806	3513		739	0.0	0671	, ,	454		981								
			0 B	TO	1000		0590 0590	3497 3496		756 756	00	0671	4 .	456		911								
				TO	1100		0531	3501		767	0.0	0568	9	1518		905								
			08		1100		0531	3501		767	- 0			-,		905								
				TD	1200	)	0544	3512	2	774	0.0	0522	1	L57a	2 14	928								
			08		1200		0544	3511		774	_		_	~ .		928								
				TD	1300		0503	3509		776	0.0	0498	7	[62]		928								
			08	S TD	1300		0503 0464	3508 3506		776	0.0	10480	8	672		928 928								
			08		1400		0464	3505		778		. 5 700		- 1		928								
				Τ0	1500		0442	3505		780	0.0	0464	7	1719		936								
			08		1500		0442	3505		780						936								

	-										т.—	MAX						-	
REFERENCE	SHIP	LATITU	OF L	ONGITUDE	MARSDE SOUAR			YEAR		STATION	DEPTH	DEPTH	.	WAVE SERVATIONS	WEA-	CLOUD			NODC
CTRY ID.	CODE	•	1/10	1/10	NO. ZOUAR	MO DAY	HR,1/10			NUMBER	BOTTON	S'MPL	S DIF.	HGT PER SE	CODE	MA SSYT	7	1	UMBER
31801	7 EV	3826	_	5026 W	114 8	0 07 25	237	1967	IIP 10	026	5394	45	23	2 2	x1	8 6			0005
, -	, ,		,		, ,	WATER	WIND	BARO	AIR TE		. NO.	1	CIAŁ	, , ,					
						LOR TRANS. D	R SPEED	METER	ORY	WET CO	DE DEPTHS	OBSERV	ATIONS						
					C	DDE (m)	FORC	(mbs)	BULS	811.8		-							
						2	2 512	31	2 260	240	07	<u> </u>		L,					
	MESSENGI TIME HR 1/10	약 NO.	CARD TYPE	DEPTH	im) † *0	s */ <sub>4</sub>	. SIG	MA-T	SPECIFIC VOLU	IME S △ DYN. x II	M	OCITY	0 2 m1/1	PO4=P Pg - 01/I	101AL=P #9 - mt/l	NO3=N ug = at/1	NO3=N pg = al/l	St O4=St ug = at/i	
	,		STO	000	0 267	20 3617	2.3	87	004039	9 000	0 15	389							
	23	7	085	000	0 26	20 3617	0 23	87			15	389							
			STO	001	0 25	3616	2.3	95	003973			385							
			STO	002	0 256	58 3614	24	01	003914			380							
			STO	003				09	003849			376							
			ST	005	0 24	90 3611	24	.23	003720	0 019	4 15	367							
			STO	007	5 247	27 3608	24	40	003570	028	15 15	355							
			ST	010				55	003430			344							
			ST					71	003291			333							
			STO	015				86	003155			321							
			STE					15	002894			298							
			STO					42	005660			275							
			STO	030				66	002449			252							
			STO					10	002055			207							
			STO					46	001726			163							
			STO					77	001449			121							
			STO	070	0 11	50 3544	2.7	03	001219	8 106	1 15	081							
			STO	080	0 10	15 3536	27	23	001030	17	4 15	045							
			STO	090	0 08	35 3529	2.7	39	000876	5 186	9 15	013							
			STO	100	0 07	71 3522	2.7	51	000759	3 199	1 14	+986							
			STO	110	0 06	72 3517	27	61	000658	31 202	22 14	1963							
			ST	120	0 05	39 3512	2.7	68	000585	7 208	34 14	946							
			STO	130	Ü 05.	22 3507	2.7	73	000539	21	0 14	935							
	2.3	7	085	T133	6 05	02 3506	1 27	74				+933							
			ST	140	0 04	80 3504	27	75	000513	88 21	3 14	+934							
			ST	150	0 04	50 3501	27	76	000504	8 224		938							
	23	7	085	T165	9 04	11 3497	8 27	78			14	949							
			STO	175	0 040	3497	27	78	000493	2 23	8 14	961							
			STI	200	0 03	33 3497	27	80	000486	9 249	1 14	1995							
	23	7	085	T 2 2 3	3 03	55 3496	2 27	81			15	027							
			ST	250	0 034	48 3496	27	83	000481	6 27:	33 15	065							
	23	7	OBS	T278	8 03.	28 3496	1 27	85				106							
			STO	300	0 030	09 3495	27	86	000469	8 29	0 15	135							
	23	7	OBS	T 338	4 02	3492	4 27	86			15	189							
			ST	400	0 02	46 3490		88	000455	3 341	in 16	282							
									00042			205							

ERENCE	SHIP	LATITU	D.F	LONG	CITUDE STOOT	MARS SQU	DEN	A 12	TION T	IME	YEAR	CRUISE		TOR'S		DEPTH	MAX. DEPTH	OB	WAVE SERVATIO	INS	WEA		UD			NODC	N
ID.	CODE		1/10		1/10 2	10*				HR.1/10	1500	NO.		ATION UMBER		BOTTOM	OF S'MPL"	1	HGT FER		000					UMBE	
1801	7 EV	3851	N	050	)15 W	114	80	07	26	037	1967	IIP	100	27		5358	15	20	1 2		X1	0	3			000	i
						[	WA.			WIND	BARO		TEM		VIS.	NO.	SPE	CIAL									
							COLOR	TRANS (m)	DIR	SPEED OR FORCE	METE:			W ET BULB	CODE	OBS. DEPTHS	DBSERV	ATIONS									
							OT	50	20	_	30		Ť	23	7	25											
	MESSENO	SP CAST	CAR			Γ,	·c	ή_	-/	1	1	SPECIFIC V	VOLU N	4E \$	ΔÞ		UND	01/	PO4-	-P 1	TOTAL-	NO <sub>2</sub> -	N N	0 <sub>3</sub> -N	SI 04~SI		-
	HR 1/1	OF NO.	TYP	E	DEPTH (m)	<u> </u>		1,		3167	1- AA	ANOMAL	01x-Y,	, OY	△ D N. M 10 <sup>3</sup>	. VELC	OCITY	O 2 m1/	νg - ο		µg - a1/1	μg - α	1/1 µg	- 01/1	μg = σ1/l	p)	Н
					0000	Ι,	540	1 26	80	23	7.6	0041	630	. 1	100	1,5	272						1				
	0.3	17	S1 QB3		0000		569 569		802			0041	526	, ,,	000		373 373										
	0.3	) (	089		0003		520		050								365										
			51	-	0010		535		25	24		0037	328		39		372										
	0.0	) 2	0BS		0010		535		252			005.	,,,	, ,	,,,		372										
		-	51		0020		443		32	24		0034	246	00	75		353										
			089		0020	2	443	36	315	24	53					15	353										
			\$1	T D	0030		263		62	25		0027	048	9 0	106		314										
			089		0030		263		620								314										
			51		0050		200		73	25		0024	66	3 0	158		302										
			089		0050		200		725			0030	200				302										
			\$1		0075		080		63	25		0022	290	) ()	416		274										
			089		0075 0100		080 956		628 55	25 26		0019	90/		269		274 244										
			089		0100		956		548			0019	004	• 0.	-03		244										
			Si		0125		926		62	26		0018	643	3 n.	317		240										
			089		0125		926		618								240										
			5		0150		879		56	26		0017	989	9 0	363		231										
			089	5	0150	1	879	36	561	26	29					15	231										
			S.		0200		835		57	26		0017	033	3 0	450		227										
			089		0200		835		570								227										
			S.		0250		794		54	26		0016	433	3 0	534		223										
			089		0250		794		541			0016			. 1.		223										
			08:	T D	0300		774 774		52 515	26 26		0016	21	, 00	516		225										
				D TD	0400		755		52	26		0016	204	5 0	778		236										
			089		0400		755		515			0010	200	3 0	1 10		236										
			S.	_	0500		726		45	26		0016	33:	1 0	941		243										
			089		0500		726		449					-			243										
				TD	0600		517		03		74	0014	924	+ 10	097		190										
			085	S	0600		517	-	029								190										
				T D	0700		274		64		96	0012	933	3 1	237		123										
			08		0700		274		639			20.0					123										
				TD	0800		990		27	27		0010	55	1 1	354		035										
			08		0800		990		265			0000		,			035										
				TD	0900 0900		763 763		09 090	27		0008	249	y 1.	448		964										
			06	5 TD	1000		655		090		57	0006	76	5 1	523		939										
			0B:		1000		655		090			5000	, , 0	_ 1.	- 2 3		939										
			S		1100		580	_	13	27		0005	550	9 1	585		926										
			089		1100		580		125				'	-			926										
			S	T D	1200		494		04		73	0005	146	5 1	638		907										
			08	S	1200		494	-	035	27	73						907										
				T D	1300		495		12		80	0004	65	7 1	687		925										
			OB:		1300		495		119		80			_	7.		925										
				T D	1400		457		06		80	0004	64	7 1	734		925										
			08		1400		457		064				c /		70-		925										
			_	TD	1500		430		04		81	0004	1564	+ 1	780		931										
			08	5	1500	0	430	35	039	27	81					14	931										

ID.	SHIP		A TITUDE	,	LONGIT	not	DRIFT	MARSDEN SQUARE	STATION TI		YEAR	CRUISE	IATOR'S STATION		DEPTH TO 80TTOM	MAX. DEPTH OF S'MPL'S		WAVE SERVATIONS	WEA- THER CODE	CLOUD			NODC STATION NUMBER
NO.			1,	10			-		MO DAY H			+	NUMBER			1		HIGT PER SEA	A	TYPL AM	*	-	
1801	7 EV	3	918	N I (	0501	0 W					967		028		5431	15	23	2 2	X 1	0 3			000
								WAT	ER W	IND	BARC			vis.	NO.	SPEC	:IAL						
								COLOR	TRANS DIR.	SPEED	METE		WET	COD	OBS. DEPTHS	OBSERV							
								_		FORCE	(mbs		-	+	-								
								DT	SD 21	515	29	1 256	239	7	24			, ,			,		
	MESSEN	4GR ]	TZA:	CARD	١.	DEPTH (r	1	r to	s ·/	SIGM		SPECIFIC VOLU	ME 3	Δο	sou	DNL	02 ml/!	PO4-P	1014L-P	NO2-N	NO3-N	SI O4-	Si
	HR 1/	101	NO.	TYPE		JEPIH (P	m1	, ,	, ,,,	21CW	^-1	ANOMALY-1	107	Δ 0 γΝ, Μ χ 10 <sup>3</sup>	" VELO	CITY	U2 m1/1	, pg • a1/1	μg + of/I	µg - a1/1	µg = 01/1	υg - a1	TI PH
	111	-10			+		-+		1	1													+
	[	ļ	- 1	C T	,	0000	n !	2610	3621	239	ļ.	003980		000	1 1 5	387				1	1	1	1
	0	7.3		STI		0000		2610 2610	36211	239		003980	10 (	1000		387							
	U	72		035		0010		2463	3604	242		003676		038		353							
				ST		0010		2463	36039	242		003070	, ,	0000		353							
				OBS ST		0020		2365	3630	247		003214	ж	0073		334							
	Δ	03		31. 280		0020		2365	36299	247		000214	, , ,	.0 13		334							
				ST		0030		2170	3645	254		002576	. 8	102		288							
				085		0030		2170	36450	254		302276	, , (	, - 0 2		288							
				ST		0050		2020	3651	258		00215	3 (	149		253							
				OBS		005		2020	36508	258		002171	'	- '		253							
				ST		007		1920	3658	261		001862	4 6	199		230							
				OBS		007		1920	36575	261		001001		,-,,		230							
				ST		0100		1870	3657	263		001749	7 (	244		220							
				085		0100		1870	36574	263						220							
				ST		0125		1832	3656	264		001680	6 (	287		213							
				oBs		0125		1832	36555	264						213							
				ST.		0150		1816	3656	264		001651	0 (	329		213							
				OBS		0150		1815	36555	264						213							
				ST		0200	٥	1779	3653	265	1	001599	9 (	410	15	210							
				o B s		0200	Ū	1779	36528	265	1				15	210							
				ST		0250		1755	3649	265		001586	4 (	490		211							
				085		0250		1755	36492	265						211							
				ST		0306		1745	3649	265		001580	0 (	569		216							
				OB5		0300	0	1745	36491	265	7				15	216							
				ST		040		1585	3614	266		001499	7 (	723		180							
				овѕ		0400	0	1585	36142	266	8				15	180							
				ST	D	0500	O .	1443	3591	268	1	001393	32 (	868	15	149							
				OBS		0500	0	1443	35905	268	1				15	149							
				ST	D	0600	0	1145	3542	270	14	001176	7 (	996	, 15	059							
				085		0600	0	1145	35422	270	4				15	059							
				ST	D	0700	0	0905	3516	272	5	000966	8	103	14	986							
				овѕ		0700		0905	35159	272						986							
				ST	D	080	0	0670	3502	275		000718	36	188	14	911							
				овѕ		080		0670	35022	275						911							
				ST		0900		0540	3502	276		000552	2 :	451		875							
				085		0900		0540	35020	276						875							
				ST		1000		0493	3502	277		000509	4	304		873							
				085		1000		0493	35015	277						873							
				ST		1100		0464	3502	277		000479	5	. 5 <i>ک</i>		877							
				085		1100		0464	35019	277						877							
				ST		1200		0443	3502	277		000456	3 .	400		886							
				oBs		1200		0443	35022	277						886							
				51		1300		0427	3502	277		00044	6	445		896							
				035		1300		0427	35019	277			-			896							
				ST		1400		0415	502 <b>د</b>	278		000444	. د	489		907							
				085		1400		0415	35015	278		2021		- 2		907							
				ST		1500		0414	3503	278		000440	) (	534		924							
				OBS		1500	U	0414	35031	278	4				14	924							

REFEREI	NCE	SHIP				MARSDEN		ION TH				ATOR'S		DEPTH	MAX. DEPTH	0.00	WAVE ERVATIONS	WEA-	CLOUD			100C
	10. NO.	CODE	LATITU		ONGITUDE	SQUARE		(GMT)	YE.	AR		STATION NUMBE		TO BOTTOM	OF S'MPL"	00.	HGT PER SE	0000				UMBER
+	-			1/10	5010 W	114 9				067		026	-+	5431	37	23	2 2	x1	8 8			0008
2 1/8	017	EV	3918	N   U	JOIO W	1 -	ATER		OND	_	A ID TE	MP. °C		NO.	1	• ¬	(-  -	1	1 0.0	1	,	••••
						COL	-	1	SPEED	BARO	-	WET		OBS.	SPE OBSERV	CIAL						
						col		UIX.	OR FORCE	(mbs)	BULB	BULE	_	DEPTHS								
								21	515	29	1 256	23	9 7	07								
		MESSENG	NO.	CARD TYPE	DEPTH (m)	ī °c	s	٠/	SIGMA.	-1	SPECIFIC VOLU	JM E 107	₹ ∆ D DYN. M x 10 <sup>3</sup>	SOE VELO	UNO	O 2 ml/	PO4~P yg = a1/1	101AL-P ug = at/l	NO2=N ug = al/1	NO3=N yg - al/l	SLO4-St pg - o1/l	рн
	- 1	HR 1/10	+		1		_		1													
	- 1		1	STO	0000	261	1 36	19	2392	, '	003998	16	0000	1 15	387		1	•		,		
		0.8	6	085	0000	261		190	2392		000770	, ,			387							
		0.0	,	STI		257		17	2401		003912	2 8	0040	15	381							
				STE		254	1 36	15	2410	)	003828	30	0078		374							
				STE	0030	250		13	2420		003744	-	0116		367							
				ST		243		80	243		00359		0189		354							
				ST		235		03	2458		003399		0277		337							
				510		227		98	2476		00321		0438		320							
				ST		219 211		93 89	2491 2515		00287	-	0512		287							
				510 510	-	196		79	2548		00257		0648		253							
				5 <b>T</b> t		181	_	71	2579		00229		0770	-	219							
				510	-	168		62	2606		002060		0879		186							
				STO	-	142	-	47	265	1	001646	56	1065	5 15	122							
				STI		120	3 35	34	268	7	00132		1413		062							
				ST	0600	100		23	2714		001069		1333		800							
				51	0700	084		14	2734		00087		1430		962							
				ST		070		07	274		00073		1511	_	925							
				ST		059		01	2759		00063		1579		897 881							
				STI		051		98	2766		00056	0 0	1639		1880							
		3 C	55	085	11012	050 048		+974 +98	276° 2770		00053	0.4	1693		885							
				5 T I		046		+98	277		00051		1749		1892							
		0.8	2.5	085	T1286	044		+983	277		00011	•	•		+900							
		., .	, ,	ST		044	_	498	277		00049	59	1796	5 14	901							
				5 T		042		198	277		00048		1845	5 14	+913							
				5 T		041		497	277		00048	93	1894		+924							
		ÛΕ	35	085	1730	039	4 34	+966	277	9					1951							
				ST		039		+97	277		00048		2015	-	+956							
				ST		037		+97	278		00047	86	2135		991							
		0.6	35	085	12158	036		4966			000/3	£ 0	2374		5014							
				51		034		496	278		00047	<b>&gt;</b> 0	2311		5087							
		0.8	8.5	OBS	T 2665	033		4962 495	278 278		00046	5.8	2609		5135							
		~ -	0.6	ST				495 4901	_		00046	٥ر	200		5231							
		0.8	85	085	3689	025	4 3	+ 701	218	1				1.	1611							

ICE SHIP		LATITU	DE	LONG	SITUDE	DRUFT	MARSO	EN RE	STATIO	N TIA	A.E	YEAR	CRUISE	DRIGIN.	ATOR'S	$\dashv$	DEPTH	000		DBSERV.		WEA	COD	ES		NODC
ID. NO.	ŧ	•	1/10		1/10	2 2	10"	12	MO DA		.1/10		NO.		UMBER		BOTTO	M S'MPL	·s D	II. HGT	PER SE	0000				NUMBER
017 EV		3943	N	049	955 W		113		07 2			1967			029	$\perp$	5376	15	1	24 1	2	X1	0	3		000
								WAT	TRANS	JIR.	SPEED	- BAR	R R	AIR TEA	WET	VIS.	NO.	CAREA	ECIAL VATIO	2111						
							-	300	IM I		FORCE	(mbi	$\rightarrow$	ULB	BULB		OEFIN	,		-						
	_							DT	SD	22	512	28		72	250	_	36	1		-	i		Т		Т.	т
	t or	NO.	CAR		DEPTH (	(m)	T	°C	5 -	٠.	SIG	T-AN	SPECIFI	ALT-11		X 10 <sup>3</sup>		LDCITY	0.7		PO 4-P g - 01/1	101AL=1 µg = a1/1	NO2-1			
HR 1	/16						-										1			1			1		<b></b>	
1	•		S		000			85	354			78	004	133	1 (	0000		350	,	,						
1	27		0B5		000			85	354 352		23 24		003	529	3 (	038		5350 5280								
			089		001			05	352	50	24	41				, 0 , 0	1 5	5280								
0	004		SI		002			73	359 359		25 25		002	448	4 (	068		5228 5228								
	104		0B9		003			105	357		25		004	167	2 (	091		180								
			089	5	003			105	357		25							5180								
			089	5 <b>T</b> D	004			45	357 358		26	20 27	0.01	774	0 (	131		5140 5137								
			0B		005			45	357			27			•	,-,1		5137								
			08		005			73	359			29						5148								
			08: 08:		006 007			35 95	359 360			38 37						5137 5158								
				TD.	007			64	361			52	00	543	9 (	172		5151								
			08		007			64	361			52						5151								
			0B:		008			78	362 361			53						5157 5146								
			08	_	009			70	362			58						5157								
				T D	010			55	362			60	00	483	1 (	210		5153								
			0 B S	5 T D	010			60	362 360			60 66	00	431	8 (	246		5153 5126								
			0В.		012	5		60	360	41		66					1	5126								
			08		013			15	359 360			69 70						5112 5118								
			0B:	5 7 D	015			09	359			70	001	396	2 (	282		5113								
			089	5	015			09	359		26				_			5113								
			S 0B:	T D	020			323	356 356			84 84	001	. 277	7 (	349		5057 505 <b>7</b>								
				TD.	025			24	354			91	00	217	2 (	411		5030								
			0B:		025			24	354			91						5030								
			0B:	5 T D	027			99	355 355			95 01	001	132	6 (	)470		5042 5030								
			OB:		030			99	355		27		00.		•	,		5030								
				TD	040			62	352			21	000	950	7 (	) > 74		4959								
			0B:		040 047			62 36	352 351		27	21 34						4959 4922								
			S		050	0	07	720	350	0	27	41	000	760	2 (	0659		4880								
			089		050			20	350 350		27		0.00	1627	9 (	720		4880								
			OB:	TD S	060			20	350			56 56	000	0627	0 (	)729		4858 4858								
			0 B	5	067	0	0.5	55	350		27	64				_	1	4843								
			S 08:	TD	070 070			36	350 350			66	000	)531	0 (	787		4840 4840								
				7 D	080			04	350			70	000	497	3 (	88(8)		4844								
			08		080			04	350			70						4844								
			0B:	TD c	090 090			+75 +75	350 350			74	000	)464	2 (	3886		4849 4849								
				T D	100	0		155	350			76	000	)452	5 (	932		4857								
			08:		100			+55	350			76	000		,	n (1) ====		4857								
			S 08	TD S	110			+39 +39	350 350			78 78	000	)443	۷ ۱	3977		4867 4867								
			S	TD	120	ю	04	27	350	1	27	79	000	0442	9	1021	. 1	4879								
			0В.		120			27	350									4879								
			5 0B.	TD <	130 130			+17 +17	350 350		27	80	000	)440	4	1065		4891 4891								
			S	TΟ	140	0	0.4	+06	350	1	27	81	000	0436	2	1109	1	4904								
			OB.	S TD	140 150			+06	350				0.0	14.4.3		1163		4904 4919								
			0 B		150			+03 +03	350 350		27	81	000	)441	4	1153		4919 4919								

EFERENCE	T					_ E MA	RSOEN	STATION TO	ME		ORIG	NATOR'S		DEPTH	MAX		WAVE		WEA-	CLOUD	T		NODC
TRY ID,	COU				1/10°	NA SO	UARE	IGMTI		YEAR	CRUISE NO,	STATION		TO	DEPTH OF S'MPL	1 00	SERVATIONS	- 1	THER	TYPE AM	1	5	TATION NUMBER
31801	7 EV	401	1/10 1 N	049		14				1967		0030	-	4901	-	+			X1	0 3			0010
31 001	1 - 4	1 401	1		, , , , , ,	1	WAT		UND	BARC	A ID T	MP. °C	VIS	NO.	Τ'	CIAL	] ' '						
							COLOR	TRANS. DIR.	SPEED OR FORCE	METE	R ORY	WET BULS	CODE	OBS. DEPTHS	OBSERV	A TIONS							
							DT	SD 23	512	27	_	23	9 8	29									
	MESSER	4G8					-1				SPECIFIC VOL			-	UND		PO4-P	1,0	TAL-P	NO <sub>2</sub> -N	NO3-N	SI O4-5	
	TIM	E OF NO.	CAF		DEPTH I	n)	ı, Ç	s •/	SIGN	1-A	ANOMALY-	107	E △ D DYN. M X 10 <sup>3</sup>	. AET	OCITY	0 2 ml	yg * at/t		g - at/l	ug - a1/1	yg - at/1	yg = q1/	
	HR 1,	710	-															T			-		
	1	1	5	TD	0000	)	2495	3577	23	95	00396	26	0000		356		1	,	,				•
	1	67	QВ		0000		2495	35765	23		0.7				356								
				TD	0010		2095	3581	25		00283	48	0034		258								
			08	5 <b>1</b> D	0010		2095 1765	35810 3577	25 25		00205	56	0058		167								
	0	02	0 B		0020		1765	35770	25		00203				167								
		-	0В		0025		1720	35788	26	-					155								
				10	0030		1744	3589	26		00192	30	0078		164								
			08	S TD	0030		1744 1622	35890 3585	26 26		00168	65	0114		5164								
			0 B		0050		1622	35845	26		00100	رن	0114		5130								
			08		006		1578	35900	26						119								
			0.8	_	0070		1604	35980	26				. 1		130								
				TD	0075		1576	3597	26		00150	11	0154		5122								
			OB	5 T0	010		1576 1487	35972 3588	26 26		00138	54	0190		097								
			OB		010		1487	35880	26		001		0 - 7 0		5097								
				TO	012	5	1427	3577	26	74	00134	71	0225		5081								
			08	_	012		1427	35772	26		20120		0 150		5081								
			S 08	TD	015		1364 1364	3567 35670	26 26		00130	12	0258		5063								
				TD	020		1278	3552	26		00125	58	0322		5041								
			08		020		1278	35520						1 5	5041								
				T D	025		1217	3546	26		00119	67	0383		5027								
			0.8		025		1217	35460			0011/	E 4	0441		5027 5017								
			08	T D	030		1165 1165	3542 35415	27 27		00114	90	0441		5017								
				TD	040		0895	3513	27		00091	26	0544		4932								
			OB		040		0895	35130	27	25				1	4932								
				TD	050		0670	3499	27		00069	67	0625		4861								
			0.8		050		0670	34990			00050	. c	0640		4861								
			08	TD	060		0570 0570	3496 34962	27 27		00059	65	0683		4837 4837								
				10	070		0525	3500	27		00052	27	0745		4836								
			08		070		0525	35000						1	4836								
				TO	080		0490	3502	27		00047	65	0795		4838								
			0.8		080 090		0490	35018 3502	2.7 2.7		00046	1.6	0842		4838 4847								
			08	TD	090		0470	35019			00046	10	0042		4847								
			0.6		097			35028	_	77P					-								
			0.8	15	098			3507P		78P													
				TD	100		0468	3504		76	00045	81	0888		4863								
			0.8		100 110		0468	35035 3501		76 77	00045	6.2	0934		4863 4869								
			08	TD SS	110		0444	35010			00040	92	ا ر ر ن		4869								
				TD.	120		0423	3501	27	79	00043	9.2	0979	9 1	4877								
			0.8	35	120		0423	35010							4877								
				10	130		0412	3501 35005		80	00043	83	1023		4889 4889								
			06	55 5TO	130 140		0412	35005		81	00043	76	1066		4902								
			0.6		140		0402	35001			00045	, 0	1000		4902								
				TO	150	0	0397	3500	27	81	00043	93	1110		4917								
			0.6		150	0	0397	35002	2.7	81				1	4917								

NCE ID.	SHIP	LATITU	DE	LON	GITUDE ANDCIE	MAR! UD2			ON TIM		YEAR	CRUISE	ORIGIN	ATOR		DEPTH	MAX. DEPTH	08	WAVE SERVATI		WEA- THER	CLOU			NODC
NO.	CODE	•	1/10		· '1/10 = =	10*	1*	MO D	AY HR.	1/10		NO.		UMB		BOTTOA	A S'MPL	S DIR.	HGT PE	R SEA	CODE	T F PE A	AA T		NUMBER
017	ΕV	4011	N	04	955 W	149	09	07 2	6 1	78 1	967	116	10	030	)	4901	41	23	2 4		х1	8	2		0011
							WA	ER	WI	ND	BARC		AIR TE	лР, °С		NO.	1		]	,				,	
							COLOR		DIR.	SPEED	M ETE	R	DRY	W E		OBS.		CIAL ATIONS							
							CODE	(m)		FORCE	lmbs		ULB	BUt	-		-								
									23	512	2.7	8 2	250	2.3	9 8	07									
[	MESSENGR		CAR	1 D			*c	T				SPECIFI	c vota	ME	₹ A D	50	UND		. PO.	_P T	OTAL-P	NO2-1	NO3=	N 5104-5	
	TIME 1 HR 1/10	T NO.	TYP		DEPTH (m)	1 '	C	2 .		SIGM	A-T		ALY-XI		x 10 <sup>3</sup>	VEL	OCITY	0 2 ml/	νg -		μg - σt/l	ng - al			
1		+		-		+		+						_		+			+	-			-	+	+
		1 :	! .	TD	0000	2	497	357	- 1	239	,	00:	3992	_ I	0000	1 1 5	356			-					
	178		0B		0000		497	357		239		00.	7772	7	0000		356								
	110	3		5 TD	0010		400	357		240		003	915	2	0040		350								
			_	TD	0020		435	357		240			3837		0078		344								
				TD	0030		404	357	-	241			3760		0116		338								
				τD	0050		344	356		243			3606		0190		327								
			_	T D	0075		269	356		245			3431		0278		312								
			S	T D	0100		196	356	4	247			3257		0362		297								
			S	TD	0125	2	125	356	2	249	12	00	3093	0	0441	15	283								
			5	ΤD	0150	2	055	356	0	250	9	002	2934	7	0516	15	268								
			S	TD	0200	1	919	355	6	254	-2	000	638	7	0656	15	238								
			5	ΤD	0250	1	789	355	2	257	2	002	370	3	0781	15	209								
			5	ŢΟ	0300	1	664	354	8	259	19	002	125	5	0893	1.5	180								
			5	TΟ	0400	1	433	354	0	264	4	001	1710	1	1085	15	123								
				T O	0500		224	353		268			361		1239		369								
				ΤD	0600		038	352		271			092		1361		019								
				TD	0700	_	876	352		273			874		1460		976								
				TD	0800		736	351		275			715		1539		938								
				TD	0900		619	351		276			587		1004		908								
				TD	1000		525	350		277			1500		1059		887								
	170	2		T 0	1100		454	35∪	4	277	q	000	)447	U	1706	14	874								
	178	5	ОВ	-	T1162		422	26.3	1	770		000			1750	1.7	0.75								
				TD TD	1200 1300		406	350 349		278			)431 )441		1750		875								
				TD.	1400		397	349		277			)453		1638		899								
	178	3	08		T1460		391	349		277		000	1400	0	1000		908								
	2			TD	1500	-	390	349		277		000	459	4	1884		913								
				TD	1750		378	349		278			1462		1999		950								
	178	3	OB.		T1974		365	349		278							983								
				TD	2000		363	349		278		000	460	4	2115		986								
	178	3	08		T2495		328	349		278							056								
				TD	2500		328	349		278		000	461	0	2345		057								
				TD	3000		288	349	4	278			)440		2571		126								
	178	3	08.	S	13085		282	349	35	278							138								
			5	TD	4000	0	231	349	1	279		000	1423	3	3003		276								
	178	3	08:	5	4055	0	229	349	0.7	279	0					15	285								

REFERENCE		_		MARSOEN	STATION TIN	NE			RIGINA	TOR'S		DEPTH	MAX.		WAVE	WEA-	CLOUG	Γ		NODC	7
CTRY 10. CODE L.	ATITUDE 1/10	101	17/10 E 18/00 F	SOUARE	IGMTI MO DAY HR		YEAR	CRUISE NO.	51	ATION JM8ER		TO BOTTOM	OF S'MPL'S		ERVATIONS	THER	CODES			STATION	4
318017 EV 4	044 N	05	000 W	150 00	07 26 2	03	1967		100		$\Box$	3713	15	24	0 2	x 1	0 3			001	2
				COLOR	TRANS. DIR.	SPEED OR	BAR	J-	RY TEM	WET	VIS,	ND. 085.	SPEC								
				CODE	(m)	FORC	1 (110)		$\rightarrow$	BULB	Ш	40									
MESSENGR	AST CA	RO		DT		\$10	1		56	239	7 △ Þ	500	IND.		PO <sub>4</sub> -P	TOTAL-P	NO2-N	NO3-N	5104-		-,
	NO. 11	PE	DEPTH (m)	τ *c	s ·/	SIG	MA-T	SPECIFIC	(LA-XID)	, DA	△ D N. M. 10 <sup>3</sup>	VELC		D2 ml/l	yg - a1/I	1/10 - وبر	ug - at/l	μg - σ1/1	yg - al		c
			0000	34.77	35(0	7.7	0.5	003	0717	,	200	16	3.5.0								
203	O E	5TD 3S	0000	2477 2477	3568 35680		395 395	003	9717		000	15	350 350								
	O E	STD RS	0010	2117 2117	3562 35620		+94 +94	0031	0294	0	35		262 262								
	5	OTE	0020	1665	3562	26	09	001	9349	0	060	15	136								
003	O E		0020 0023	1665 1643	35622 35700		509 520						136 131								
	OE	35	0025	1714	35991	26	26					15	156								
	06	STD BS	0030	1695 1695	3599 35991		30	001	1373	3 0	78		151 151								
	OE		0037 0050	1640	35950		40	001	5440		111		135								
	0 8		0050	1645 1645	3611 36111	26	51 51		5440			15	141 141								
	O E	5TD	0075 0075	1562 1562	3600 36000		62 662	001	4503	0	148		118 118								
	0.6	35	0087	1517	35920	26	666					15	105								
	0.6	STD 35	0100	1535 1535	3605 36050		572 572	001	3635	0	184		114 114								
	9	STD	0125	1443	3579	26	72	001	3669	0	218	15	086								
	0.6	35 5 <b>T</b> D	0125 0150	1443 1372	35790 3571		5 <b>7</b> 2 581	001	2865	0	251		086 066								
	OE	35	0150	1372	35712	2€	81			_		15	066								
	0 E		0180 0190	1269 1304	35540 35660		589 591						035 049								
	9	STD	0200	1280	3558	26	90	001	2157	7 0	313		042								
	0 E		0200 0205	1280 1245	35580 35500		90 91						042 030								
	0.6		0212 0250	1265	35620 3541	26	96 704	001	0931		371		039 000								
	08	5 T D 3 S	0250	$1141 \\ 1141$	35410	27	704	001	0 9 3 1	. 0	J 1 1		000								
	0.8	STD Re	0300 0300	1034 1034	3531 35310		715 715	000	9896	0	423		969 969								
	9	STD	0400	0809	3509	27	735	000	8082	2 0	513	14	900								
	06		0400 0410	0809 0780	35090 35100		735 740						900 890								
	0.6	35	0420	0823	35190	27	741	200				14	909								
	OE	5TD 3S	0500 0500	0711 0711	3514 35140		753 7 <b>53</b>	000	6439	, 0	>86		879 879								
	08	510	0600 0600	0630 0630	3516 35158		766 766	000	5321	0	645		864 864								
	0.8	35	0610	0641	3506P	27	757P														
	0 E		0625 0635	0594 0607	35120 35123		768 766						853 860								
	0.6	35	0685	0569	35110	27	770					14	853								
	08	STD BS	0700 0700	0576 0576	3512 35124		770 770	000	4980	) 0	696		858 858								
	9	STD	0800	0520	3508	2	773	000	4730	0	745	14	851								
	0 E	35	0800 0806	0520 0536	35075 35120	27						14	851 859								
		35	0865 0900	0496 0490	35071 3506		776 776	000	4557		791		852 856								
	0.8	STD BS	0900	0490	35062	27	776		4554			14	856								
		STD BS	1000	0468 0468	3505 35051		777 777	000	446	3 0	636		863 863								
	5	STD	1100	0445	3503	27	778	000	4442	2 0	881	14	870								
		35 STD	1100 1200	0445 0435	35028 3502		778 779	000	445	2 0	925		870 882								
	01	BS	1200	0435	35023	2	779					14	882								
		STD BS	1300 1300	0421 0421	3503 35031		781 781	000	4309	y 0	969		893 893								
	:	STD	1400	0424	3504	27	781	000	4379	9 1	012	14	912								
		BS STD	1400 1500	0424 0406	35040 3501		781 781	000	446	1 1	057	14	912 920								
		35	1500	0406	35009		781					14	920								

REFERENCE	SHIP	1.				- #	MARSDEN	STATION TI		45.00		NATOR'S		DEPTH	MAX. DEPTH	000	WAVE SERVATIONS	WEA-	CLOUD			NODC
ODE NO.	CODE		30 UTII 1/11		1/10 °	DRIFT	SQUARE	MO DAY H		YEAR	CRUISE NO.	STATION NUMBER		BOTTOM	OF S'MPL'S	l .	HGT PER SEA	CODE	COOES			STATION NUMBER
31801	7 EV	41	18 N	+	008 W	$\Box$	150 10			1967	IIP 10	0032		3749	15	25	02	X1	0 3			0013
- 21-0-	1	1		1 0 -		' '	WA		IND	BARC	A 10 T	MP. °C	Т	I NO			101-1	1 / 1	1 0 1 5	1	1	001.
							COLOR	TRANS OIR.	SPEED OR FORCE	METE	R DRY	WET	CODI	OBS. DEPTHS	SPEC OBSERV	ATIONS						
							DT	SD 22	S18	26	-	239	7	23								
	MESSEN	GR CA	., [ ,	ARO			T ,				SPECIFIC VOL	+		+	IND		PO4-P	TOTAL-P	NO2-N	NO3-N	51 04=5	
	HR 1/	: 05 M	D. T	YPE	DEPTH (	(m)	1 %	s ·/	SIGM	A-T	ANOMALY-	110,7	∆ 0 rn, M x 10 <sup>3</sup>	VEFC		O 2 ml/l	μg · α1/1	νg - α1/1	ug - o1/1	μg - ot/1		
			1							T												
				SID	000		2260	3576	246		00330	59 0	000		298							
	0	27		85	000		2260	35758	246						298							
				STD	001		1845	3611	26(		00199	33 0	027		193							
				BS	001		1845	36111	260		00151	۵ ^	07:5		193							
	0	03		STD BS	002 002		1756 1756	3635 36345	264		00161	00 0	045		172 172							
	U	0 0		STD	002		1738	3639	265		00154	94 n	060		168							
				BS	003		1738	36385	269	-					168							
				STD	005		1737	3645	26		00150	60 <b>o</b>	091		172							
				BS	005		1737	36451	26						172							
				STD	007		1727	3643	265	56	00150	56 0	129	15	173							
				88	007		1727	36430	265	-			_	-	173							
				STD	010		1683	3634	266		00147	96 0	166		163							
				85	010		1683	36340	266		00161		103		163							
				51D BS	012 012		1550 1550	3604 36035	266 266		00141	45 0	202		123 123							
				STD	015		1397	3574	26		00131	<b>7</b> 2 0	236		075							
				88	015		1397	35739	261		00131	, ,	200		075							
				STD	020		1253	3551	269		00121	88 0	300		032							
				85	020		1253	35505	269	90					032							
				STD	025	0	1172	3542	269	99	00114	23 0	359	15	011							
				STD	030		1073	3533	27		00104	63 0	413	3 14	983							
				BS	030		1073	3 <b>5</b> 325	271						983							
				STD	040		0825	3508	27:		00083	99 0	508		905							
				Bs	040		0825	35080	273		00013		- 0 -		905							
				STD BS	050 050		0606 0606	3495 34950	275		00063	92 0	582		835 835							
				STD	060		0593	3509	276		00053	22 0	640		848							
				85	060		0593	35090	276		00000		0		848							
				STD	070		0557	3510	27		00048	90 O	691		850							
			0	85	070	0	0557	35102	277	71		_	_		850							
				STD	080	0	0475	3504	27	75	00044	50 0	738		832							
			0	BS	080	0	0475	35035	277	75				14	832							
				STD	090		0456	3503	27		00043	58 0	782	14.	841							
				85	090		0456	35030	27						841							
				STD	100		0436	3502	27		00043	22 0	825		849							
				85	100		0436	35015	271		00043	3 6 ^	ш. с		849							
				STD 8s	110 110		0427 0427	3503 35025	278 278		00042	o 0	868		862							
				55 51D	120		0427	35025	278		00043	) /· · · ·	910		862							
				85	120		0414	35020	278		00042	J4 O	<i>7</i> 1 0		874 874							
				STD	130		0414	35020	278		00042	71 o	953		890							
				85	130		0413	35022	278		300 /2				890							
				STD	140		0406	3503	278		00042	30 0	995		904							
				85	140		0406	35028	278	3.2					904							
				STD	150		0397	3503	278		00042	25 1	038	14	917							
			0	85	150	0	0397	35025	278	3 3				14	917							

REFERENCE CTRY ID. CODE NO.	SHIP CODE	LATITU	DE 1/10	LONGITUDE	MARSDEN SQUARE	STATION TI	YEAR		TOR'S ATION JMBER	10	MAX. DEPTH OF	085	WAVE ERVATIONS	COD	CODE	5	\ S	NODC TATION UMBER	
318017	EV	4118		05008 W	150 10		042 1967			3749	36	25	0 2	x1	7 1			0016	
7 310011		4110	14	0,000 <b>m</b> ;	-		VIND BAR	AID TEAS	P. °C	NO.			0121	1 1	1 1 1 1	1	I	0014	
						TRANS. DIR.	SPEED MET	ER DRY	WET CODI	0.00	SPEÇIA Servat								
					CODE		FORCE (mb		BULB										
						22	S18 26	51   242	239 7	07				,			,		
	MESSENGR TIME ( HP 1/10		CARC		1 T TC	s ·4.	SIGMA-T	SPECIFIC VOLUM		. VELOCI		2 ml/1	PD4-P	101AL-8	NO2-N ug - at/i	NO3-N µg = a1/1	SI O4Si yg - qi/l	рН	S
	1													1					[
			ST		2395	3531	2391	0040057	0000										
	042	2	085		2395	35308	2391	003000	001-	1532									
			ST		2367 2339	3530 3530	2399	0039366											
			ST			3529	2407 2414	0038624											
			ST			3528	2429	0036602											
			ST		2189	3527	2447	0034964											
			ST			3526	2465	0033358											
			ST		2057	3525	2482	0031837											
			ST	D 0150	1993	3524	2498	0030370	0526	1524	47								
			ST	0 0200	1869	3522	2529	0027623	0671	1522	20								
			ST	D 0250	1750	3520	2557	0025104	0802	1519	94								
			ST	D 0300	1636	3518	2582	0022799	0922	1516	57								
			ST			3514	2626	0018782											
			\$7			3511	2664	0015387											
			ST			3508	2694	0012637											
			\$T			3505	2717	0010416											
			ST			3503	2737	0008598											
			ST		-	3501 3500	2751 2762	0007190		-	_								
			ST			3498	2770	0005331											
			ST			3498	2776	0000001											
	042	?	085			34974	2777	000		1488									
		_	ST			3497	2777	0004624	1951										
			ST			3498	2778	0004618											
			ST	D 1500	0397	3498	2779	0004591	2043	1491	16								
	042	2	085	T1539	0394	34975	2779			1492	21								
			ST			3498	2782	0004472											
			ST			3498	2784	0004359	2267										
	042	2	085			34980	2785			1498									
	0		ST			3495	2785	0004465	2487										
	042	4	085			34946	2785	0006223	2707	1506									
	0.7	,	ST			3493	2787	0004331	. 2707	-									
	042		085		0274 0230	34932	2788			1513									
	044	2	085	3585	0230	34991	2 <b>7</b> 96			1520	J 4								

ID.	SHIP	LATITU	DE	long		MAR	SOEN ARE	STAT	ION TI	ME	YEAR	CRUISE	ORIGIN	ATOR'S		DEPTH TO	MAX. DEPTH	085	WAVE ERVATIONS	TH	IER C	LOUG		9	NODC
NO,	COOE	•	1/10	•	1/10	10*	1.	MO	H YAC	R.1/10		NO.		UMBER		MOTTOM	S.W. P.	DIR.	HGT PER 5	EA CC	DDE TY	PE A AKT			Y U M BER
017	EV	4145	N	050	13 W	150			27 0	182	1967	11P	10	033	:	3823	15	22	2 2	X	$\Box$	0 3			0015
								TER	٧	CMI	BAR	U	AIR TEA	AP. C		NO.	SPE	CIAL				-			
							COLOR	TRANS.	OIR.	SPEED OF FORCE	M ET	ER I	ORY ULB	WET	CODE	OBS. DEPTHS		ATIONS							
								+	12		+	-	-		1.	2.7									
٦						1	DT	SD	23	517	23		233	228		27	L		ī		_			1	_
1	MESSENGR TIME		CAR		OEPTH (m)	1	℃	\$	٠/	SIGA	I A -T	SPECIFIC	VOLU:	, F 0	γA. D.		UND	02 ml/l	PO4-P	101AL		02-N	NO3-N	\$104-5	
-	HR 1/10					+		+-		-				$\perp$	x 10 <sup>3</sup>				pg - 01.1	pg-d	nzi pu	- at l	μg = 01/I	νg - 01/	`
														1			1					- 1		1	
	0.0	2		T D	0000		152	33		2.2		004	890	0 0	000		241								
	08	2	08: 08:	-	0000		152 356		170 745	22 25							013								
				5 TD	0010	_	345	33		25		00.2	641	4 0	038	_	010								
	00;	2	0В:		0010		345		737	25		002	.041	-	000		010								
		_	S	TO	0020	1	285	33	60	25		002	630	3 0	064		989								
			0B:	S	0020		285		600	25	36					14	989								
				TO	0030		041	34		26		001	351	6 0	084		920								
			08		0030		041		752	26		001	201	2 0			920								
			0 B :	T D	0050		087 087	35	061	26 26		001	206	3 C	110		944								
				TD	0075		175	35		26		001	168	, c	139		983								
			OB:		0075		175		332	26		001	. 100	•	1 ) >		983								
				TD	0100		156	35		26		001	176	4 0	168		979								
			OB:		0100		156		283	26							979								
			S.	TO	0125	1	143	35	27	26	93	001	167	3 0	198	14	979								
			0B:		0125		143		272	26							979								
				TD	0150		145	35		26		001	174	9 0	227		984								
			OB:		0150		145		275	26		001	010		100		984								
			OB:	TD.	0200		926 926	35	01 010	27 27		001	010	2 0	282		910 910								
				5 T D	0250		847	35		27		0.00	843	в с	328		389								
			0B:		0250		847		082	27		000	045	0 0	220		889								
				TD	0300		706	34		27		000	841	9 0	370		840								
			08		0300		706		819	27							840								
			S.	TΟ	0400	0	646	35	00	27	51	000	641	9 0	444	14	835								
			089	-	0400		646		999	27							835								
				τO	0500		555	35		27		000	528	4 0	503		815								
			089		0500		555		010	27		• • •			c		815								
			089	T D	0600		523 523	350	029	27		000	4864	4 (	554		819								
			089		0630		563		175	27							819 842								
			089		0660		551		143	27							842								
				TD	0700		500	350		27		000	446	5 0	600		826								
			089	5	0700	0	500	35	060	27	74					14	826								
				TΟ	0800		463	350		27		000	424	9 0	644		828								
			089		0800		463		142	27							828								
			\$1		0900		448	350		27		000	411	1 0	686		838								
			0B3	7 D	0900 1000		448 430	351	049	27		000	406	a ^	727		838 847								
			0B5		1000		430		339	27		000	700	<sub>7</sub> 0	. 21		847								
			S1	_	1100		415	350		27		ეიი	403	2 0	767		857								
			089		1100		415		332	27					٥,		857								
			51	T D	1200	0	405	350	0.2	27		000	4060	0 0	808		870								
			OBS		1200		405		24	27							870								
			51		1300		397	350		27		000	407	3 0	848		د 88								
			089		1300		397		21	27		000					883								
			0B3		1400 1400		392 392	350		271		000	4099	y 0	889		898								
				7 D	1500		385	35	021	271		000	405	2 ^	G 2 ^		898								
			0B:		1500		385		27	27		000	<b>→</b> ∪ ⊃ .	ں ر	930		912 912								

REFERENCE						=======================================	MARSDEN	STATION TIM	ΛE			ORIGINA	_	_	DEP	тн	MAX. DEPTH	OBSE	WAVE EVATION	ıs	WEA- THER	CLOUD		51	NOOC TATION
L-1	900E	LATITU	- 1	LONG	11UOE 11/10	DRIFT	SOUARE	(GMT)	.1/10	YEAR	CRUISE NO.	S	TATIO NUMBS	N. R	BOTT		OF S'MPL'S		HGT PER	- 1	COOE	TYPE AM		N	UMBER
<del></del>	EV	4210	1/10 N	050		-+				1967	IIP	10	034		34	38	15	20	2 2		Хl	0 3			0016
318017	Ev	4210	) Ni j	000		. !	WAT		IN D	BARC		AIR TEA	MP. °C	vis.	NC	э.	SPEC	AL							
							COLOR	TRANS. DIR.	SPEED OR FORCE	M ETE		DRY ULB	W E1	[ ]coo	OEP	THS	OBSERVA								
							DT	SD 21	518			33	22	8 7	4	1									
	_							35 33						<b>≥</b> Δ 0	1	sou	NO		PO4-P		TAL-F	NO2-N	NO3-N	SI O4-SI	
M	ESSENGR TIME	CAST NO.	CA		OEPTH	lm )	1 °C	s */	SIG	M A - T	SPECIFIC	ALY-XI	107	∑ ∆ D DYN. ∧ X 103	۸	VELO	CITY	0 2 m1/1	pg • 01/	n J	9 - 01/1	μg = α1/1	μg - αt/l	yg - at/l	pН
<u> </u>	R 1/10					_		<del> </del>					_		-										Γ
		1	١	TD I	000	0	2080	3355	23	147	004	429	4	0000	ֹ כ	152	226		'						
	11	1	08		000		2080	33549		347							226								
				STD.	001		1478	3434		553 553	004	465	2	003		150	060								
			0.5	SS STD	001		1478 1125	34340 3440		28	00	1752	2 2	005			944								
	00	3	08		002		1125	34400		28							944								
				STD	003		0870	3400		40	00	1638	3 3	007	3		848 848								
			08		003		0870 0766	34000 33850		540 544							807								
			0 E		004		0873	34140		551							852								
			0.6	35	004		0820	34200		564	0.0		. 7	010	2		834								
				STD	005		0840 0840	3437 34368		574 574	UU.	1324	+ 1	010	۷.		844 844								
			30 30		009		0809	34360		578						14	834								
				STO	00	15	0914	3472		689	00	1182	25	013	3		881								
			0.0		00		0914 0928	34717 34835		689 696							881 889								
				BS STD	008		0835	3474		704	00	1050	06	016	1		856								
				BS	010		0835	34740	2	704							856								
				BS	01		0875	34832		705	0.0	095	76	018	6		874								
				STD BS	017		0777 0777	3476 34758		714 714	00	090	, 0	0.0			838								
				85	01		0735	34700	2	715					_		823								
				STD	01		0816	3486		716	00	094	29	021	.0		858 858								
				85	01 01		0816 0745	34860 34890		716 729							837								
				BS STD	02		0580	3461		729	00	081	99	045	4		770								
			0	BS	02		0580	34607		729							770								
				BS	02		0668 0606	34960 34844		745 744							791								
				BS STD	02 02		0636	3492		746	0.0	066	57	029	1	14	805								
			0	85	02	50	0636	34919		746							805 817								
				BS	02 03		0655 0582			748 747	0.0	1066	23	032	25		+791								
				STD	03		0582			747	•			•		14	+791								
				85	03		0655	35067		755							4827								
				BS	03		0625			1759 1759							4821 4802								
			O	BS STD	03	00	0576 0559			763	00	052	226	03	84		4800								
			0	BS	-	00	0559	35007	7 2	763							4800								
				BS		72	0477			768	0.1	1044	. 4.6	04	22		4778 4786								
			_	STD BS		00	0484			2770	U(	0046	000	04.	د ر		4786								
			C	STO		00	0460			773	00	0044	16	04	79		4792								
			C	BS	06	00	0460	34985		2773	0.1	1063	171	05	2 2		4 <b>7</b> 92 4807								
			_	STD		00	0454			2775 27 <b>7</b> 5	U	0043	11	, ر ن	ر ے		4807								
				BS BS	-	50	0431			2776						1	4806								
				วธร	0.7	60	0444			2778		3047	216	05	66		4813 4815								
			,	STD		00	0435			2 <b>777</b> 27 <b>7</b> 7	U	0042	. 10	0,0	00		4815								
			(	OBS STD		00	041	3501		2 <b>7</b> 79	0	0040	051	06	07		4825								
			(	) B S	09	00	041	3500		2779		0041	154	06	48		4825 4841								
			,	STD		000				27 <b>7</b> 9 27 <b>7</b> 9	U	0041	- ) 4	00	+ 0		4841								
			(	OBS STD		100		3498		2780	0	0040	087	06	89	1	4845								
			(	OBS	1	00	038	8 3497	9 .	2780	_	001	122	0.7	20		4845 4861								
				STD		200				2781 2781	0	004	123	U l	30		4861 4861								
			(	OBS STD		200 300		-		2782	0	004	137	07	72	1	4877								
				OBS	1	300	038	3 3498	8	2782		0.5.		٥.	1 3		4877								
				STD		400				2783 2783	0	004	124	0.6	13		.4894 .4894								
			-	OBS STD		400 500				2783	0	004	172	08	54	1	4909								
				08s		500				2783						1	4909								
				~																					

PEFERENCE						,				1 1					,		
CTEY 10.	CODE	LATITUE	DE LO	ONGITUDE	MARSDEN SQUARE	STATION TI	IME YEAR	CRUISE 5	TATION	DEPTH	MAX. DEPTH OF	WAVE BSERVATIONS	WEA				NODC
CODE NO.	CODE	•	1/10	1/10 2	10" 1"	MO DAY H	R,1/10		UMBER	BOTTOM	S'MPL'S DIR	HGT PER S	COD		t		UMBER
31801	7 EV 4	4210	N O	5014 W	150 20		123 1967	1 1 P 10	034	3436	33 2	0 2 2	x1	0 2	1		0017
					_		SPEED BAR		V15	NO.	SPECIAL						
					COFO	R TRANS DIR.	OR (mb		MEI COD	OBS. O	DESERVATION	S					
						21	518 23	30 233	228 7	07		7					
	MESSENGR TIME OF	CAST NO.	C ARD TYPE	OEFTH (m)	1 10	5 %.	SIGMA-T	SPECIFIC VOLUM		SOUN		PO 4-P yg - 01/1	FOTAL-F	NO <sub>2</sub> -N ug = 01/1	NO3=N µg - a1/1	51 O 4 51 ug = ot 'l	рН
									-						_		-
			STD	0000	2083	3350	2342	004469	7 0000	152	26	•	1	1		1	1
	123		085	0000	2083	33504	2342			152	26						
			STD	0010	2058	3352	2350	004400		+ 152	21						
			STD	0020	2033	3353	2357	004332									
			STD	0030	2008	3354	2365	004264									
			STD STD	0050 0075	1959 1899	3356 3359	23 <b>7</b> 9 2397	004131									
			STD	0100	1840	3362	2414	003972									
			STD	0125	1782	3365	2431	0036674									
			STD	0150	1726	3368	2446	003524									
			STD	0200	1616	3374	2476	0032500									
			STD	0250	1511	3380	2504	0029944									
			STD	0300	1410	3386	2531	0027556									
			STD	0400	1222	3398	2578	002325	7 1320								
			STD	0500	1053	3410	2618	0019536	5 1534	149	93						
			STD	0600	0902	3422	2652	001631	7 1714	149	56						
			STD	0700	0770	3434	2682	0013543	3 1863	149.	24						
			STD	0800	0655	3446	2707	0011126									
			STD	0900	0560	3458	2729	000906		-							
			STD	1000	0482	3470	2748	000726									
			STD	1100	0423	3481	2764	0005738									
	123		STD	1200 T1203	0383 0382	3493 34937	2777	0004454	2285	-							
	143		STD	1300	0379	34937	2778 2778	0004433	3 2329	148							
			STD	1400	0376	3495	2779	0004453									
			STD	1500	0373	3495	2780	0004463									
	123		085	T1506	0373	34950	2780	300470.	2.10	1490							
			STD	1750	0362	3495	2781	0004514	+ 2530								
			STD	2000	0348	3495	2782	0004513									
	123		OBS	T2010	0347	34952	2782	•		1498							
	123		OBS	T2496	0311	34950	2786			1504	49						
			STD	2500	0311	3495	2786	0004364	2865	1504	49						
			STD	3000	0272	3493	2788	0004225	3080	151	19						
	123		OBS	T 3016	0271	34931	2788			1512							
	123		OBS	3319	0242	34921	2790			1516	61						

		SHIP	LATITU	DE 1/10	LONG	1TUDE '1/10	DRIFT	MARS SQUA	ARE	STATION IGM	TIME () [HR,1/10	YEAR	CA	ORIGI	ITAT?	)N	_	DEPTH TO BOTTOM	MAX DEPTH OF S'MPL'S	OBS	WAVE ERVATIO		WEA- THER CODE	CLOU CODI	5		NOOC STATION NUMBER
+		Ev	4222		050	140W	H	150	20	07 27		196	$\rightarrow$	$\rightarrow$	003		+	2889	26	21	2 2	367	x 1	7	1		0018
2110	017	LV	4222	.JN	000	140W	1 1	ا	WA		WIND	•			EMP.	_	4	NO.			12121		^1		' '	- 1	0010
								1	COLOR		SPE	D M	RO.	ORY	w	- V	IS DDE	085.	OBSERVA								
									CODE	(m) DII	FOR	CE (n	nbs)	8UL8	90	. 9		DEPTHS									
								ĺ		2	3   51	8 2	20	250	2	39	7	05									
		MESSENG TIME HR 1/10	or NO.	CAR TYP		DEPTH	(m )	ī	*c	s ·/.	51	GMA-T		CIFIC VOI		₹ △ OYN. x I	۵ دو	VEF0		0 2 ml/l	PO4-		01AL-P vg + 01/1	NO2-1			
															ĺ												ĺ
				S	T D	000	0	2	105	3465	2	423	0	0370	00	000	0	15.	245								
		14	4	08:	5	000			105	3464		423							245								
					T D	001			081	3465		430		0363		00			241								
					T D	002			056	3465		437		0357		00			236								
				_	TD	003			032	3465		443		0351		010			231								
					TD	005			985	3466		456		0340		01			221								
					T D	007			926	3466		472		0326		026			209								
					TD TD	010			869 813	3467 3468		487 501		0312		034			197 185								
				_	TD	012			757	3468		515		0286		040			173								
					TD.	020			650	3470		542		0263		06			149								
					TD	025			547	3471		566		0241		07			126								
					TD	030			448	3472		589		0220		086			103								
					TD	040		1	264	3475		629	0	0184	50	10	72	15	059								
					TD	050	0	1	096	3477	2	663		0153		14	41	15	017								
				S	TD	060	0		946	3480		691	0	0127	90	13	32	14	980								
				S	TD	070			812	3483		714		0106		14			947								
					TD	080			696	3485		733		0088		15			919								
					TD	090		-	597	3488		748	-	0073		16			896								
					TD	100			515	3490		760		0061		17			880								
					TD	110			450	3493		770		0052		18			870								
					TD	120			402	3495		777	C	0045	44	18	51		868								
		1 4	4	08		1121			395	3495		778	_	00//	2.7	18	٠.		868 877								
					TD TD	130			385 375	3495 3494		778 779		0044		19			877 890								
					TD TD	150			366	3493		779	-	0044	_	19.			903								
		14	. 4.	08		152			364	3493		779	·	00-4	/-	• /	ر ن		905								
		1.4	• •		S TD	175			357	3494		780	-	0045	2.8	20	3.6		941								
					TD	200			343	3495		783		10045		22			978								
		14	. 4	0B		1203			341	3495		783		.00	,	۷.	- 0		982								
					TD	250			298	3494		786	C	0042	49	24	28		044								
		14		08		264			281	3493		787			. ,				061								

CE D.	SHIP	LATITU		LOP	NGITUDE	DRIFT IN DCTR	M A R SQU	ARE		ION TEGMT)		YEAR	CRU		STAI	ION	-[	DEPTH TO	MAX DEPTH OF	1 0	WAVE		WEA	R COD	ES		STA	ODC
0.		422	1/10 2.5 N	0.5	0140W	+	150	20	мо I			106	7 1			A B E R	+	001104	S'MPL					TIPE A			NU	MBER
) I 1	- <b>v</b>	762	LJN	00	0140W		150	WA			IND	196 BA		IP 10		*c	Ť	2889 NO.	1	_	.   2   4	:		1 0	3		0	0019
								COLOR	TRANS.	OIR.	SPEED OR FORCE	AM E (m	TER bs)	DRY BULB			A DDE	OBS. DEPTHS	COLLEGE	CIAL VATIONS								
,		,	,					DT	SD	23	518	2	20	250	2	39	7	39										
	MESSENGR TIME	NO.	CA TY	RO PE	OEPTH (	lm l	T	*c	s	•/	SIGA	/A-T	SPEC	IFIC VOLU	M.E	₹ ∆ DYN. x 1	Μ.		UND OCITY	0 2 ml/	1 PO		TOTAL- up - qt/					ρН
ŀ	HR 1/10		-			_				_		_	+		-	^ '		-			+	-		-	l yg - ali	/I µg -	-	
	15		. oB	TD	000			143	34	70 595		16	00	3762	7	000	00		256		1			'	1	1		
	10	_		TD.	001			959	34		24 24	59	00	3359	6	00	36		256									
			08	STD	001			959		510		59	0.0					15	207									
	00.	2	08		002			615 615	34	00	25	45	00	2547	1	000	5	15	109									
				TD	003			368	350		26		00	1767	1	008	37		036									
			0B 0B		003			368 367		998 240	26 26								036									
			ОВ	S	004		1	286	35	228	26	62						15	013									
			0B	TD S	005			330 330	354		26 26		00	1341	3	011	. 8		033									
			ОВ	S	006	9	1	295	359	530	26	83							025									
			S QB	TD S	007			267 267	355		26 26	-	0.0	1208	5	015	0		016 016									
			οв	S	008	5	1	284	355	38	26								024									
			S OB	T D	010			235 235	353 353		26		0.0	1242	8	018	0		008 008									
			S	TD	012	5	1	201	353	37	26		00	1200	8	021	. 1		000									
			0B	5 10	012			201 183	353 354		26 26		0.0	1152	0	0.24	^		000									
			0В		015			183	353		26		00	11102	0	024	. 0		998 998									
			08 08		015			178 130	353		26							14	998									
				5 TD	0200			030	351 352		27	86P 11	00	1011	6	049	4	14	951									
			08		0200			030	352		27								951									
			0B S	5 TD	0219			035 930	352 351		27		00	0908	1	034	2		956 921									
			08		0250			930	351		27	2.2						14	921									
			OB:	S TD	0271			855 835	350 351		272		0.0	08173	3	0 3 8	6		896 893									
			OB:		0300			835	351		273	3.2							893									
			OB:		0315			7 <b>7</b> 7 765	350 351		273								873 876									
			S	TD	0400	)	06	610	349		279		00	0646	7	045	9		820									
			0B;	S TD	0400			610 508	349 349		279		0.0	0611	1	05.			820									
			0B:	S	0500	)		508	349		276		00	05112	e.	051	1		795 795									
			0B:		0525			554 513	350	10	77-	•																
				T D	0600			516	350		277		00	04709	9	056	6		810 816									
			089 089		0600			516	350		277								816									
			S		0645			483 485	350 350		271		0.0	04469	9	061	2		810 820									
			089		0700			485	350		277	74					_		820									
			OB:		0757			462 451	350 350		277		0.0	04352	2	065	_		320									
			0В		0800			451	350		277		00	04332		009	0		322 322									
			S1 085	T D	0900			414	349		277		00	04291	ŀ	069	9		323									
			Si	TD	1000	)		414 401	349 349		277		00	04221	1	074	1		323 334									
			0B5		1000		04	401	349	70	277	8						148	334									
			08		1100			411 411	350 350		278		00	04186	5	078	4		355 355									
			S1	r D	1200	)	04	+06	350	1	278	1	00	04205	5	082	5	148	370									
			0B5		1200 1300			406 391	350 349		278		ດດ	04231	1	086	8	148	370 380									
			089	5	1300	)	03	391	349	89	278	1						148	880									
			S1 0B5		1400			380 380	349 349		278 278		000	04245	5	091	0	148										
			S 1	D	1500		0.3	375	349	8	278	2	000	04267	7	095	3	148										
			089	5	1500		03	375	349	80	278	2						149										

PENCE SHIP	LATITU	DE	LONGITUDE	DRIFT	MARSDEN SQUARE	STATION TI	ME	YEAR	CRUISE	IGINAT	OR'S		OEPTH TO	OEPTI OE		WAVE SERVATIONS		ER	CLOUD		5	NOOC TATION	4
NO. CODE	· ·	1/10	1/10	0 Z	10. 1.	MO OAY H	R,1/10		NO.		MBER		BOTTOM	S'M PL	°S OIR	HGT PER S	EA CO	DE	TYPE AMT		1	IUMBER	1
8017 EV	4233	N	05014 W	1	150 20			1967		100		$\perp$	2395	15	22	4 2	x	1	0 3			002	0
					WA		ONI	- BAR	٥	TEMP		vis.	NO, OBS.	SP	ECIAL								
					COTOS	TRANS. DIR.	SPEED OR FORCE	(mb			BULB	CODE	DEPTHS	OBSEK	VATIONS								
					DT	SD 21	522	20	3 23	9	228	7	27										
MESSEN	GR CAST	CAR	OEPTH		r °c	s ·/	TIC.	1A-T	SPECIFIC	OLUM.	£ 2	△ 0 N. M. 10 <sup>3</sup>	\$01	סאנ	O2 ml/	PO4-P	TOTAL	P P	NO2-N	NO3-N	\$104-5		
HR 1/	10 NO.	1 4 7 9	Otrin	1			3101	14-1	ANOMA	Y-X107	×	103	V\$FC	OCITY	07	μg - 61/1	pg - 0	t/1 µ	19 - 01/1	µg - at∕l	/9 - 01	P"	_
-							T															1	
1		S1			2039	3306	23		0046	798	00	000		209									
1	82	OBS			2039	33060	23							209									
		0B9			1005 0805	33060 3303	25 25		0022	620	0.0	035		882 807									
0	03	OBS			0805	33030	25		002.2	020	01	000		807									
		0В5	-		1055	33600	25	79					14	908									
		S1			0945	3453	26		0013	582	0	053		881									
		089			0945	34530	26							881									
		51			0958	3458	26		0013	464	0	066		888									
		0B3			0965 1105	34600 35100	26 26							892 950									
		S1			1161	3525	26		0011	972	0	092		973									
		51			1255	3552	26		0011			121		012									
		089			1255	35517	26							012									
		0B3			1165	35300	26		0011	c 7 7		163		981									
		S.			1205	3543	26 26		0011	5//	U	151		998									
		0B 5			1205 1185	35430 3542	26		0011	347	0	179		995									
		089			1185	35420	26		001.		·			995									
		5			1125	3533	27		0010	987	0	207	1 4	977									
		08			1125	35330	27							977									
		S.			1005	3520		12	0009	990	0	260		941									
		0B			1005	35200	27		0010	1200		210		941									
		S :			0986 0973	3513 35120	27	10	0010	1298	. 0	310		941									
		S			0773	3504		37	0007	7737	0	356		869									
		0B:			0773	35040		37	• • •		-			869									
		S		0	0585	3495	27	55	0009	980	0	424	14	810									
		0 B			0585	34950	27							810									
		S.			0503	3499		69	0004	784	0	478		794									
		OB:			0503 0450	34990 3495		69 71	0004	. 5 5 7		525		794 788									
		OB:			0450	34950		71	000-	,,,,		, ,		788									
			rD 070		0437	3496		74	0004	433	0	570		799									
		08			0437	34960	27							799									
			rD 080		0435	3500		77	0004	+216	0	613		815									
		OB:			0435	35000		77	000	7.0				815									
		0B:	rD 090 5 090		0449 0449	3503 35025		77 77	0004	100	U	655		838									
			TD 100		0443	35023		79	0004	211	0	698		844									
		0B:			0423	35008		79			. •	, ,		844									
		S	TD 110	00	0423	3503		80	0004	184	• 0	740		861									
		0B			0423	35025		80		, -		7		861									
			TD 120		0415	3503		81	0004	+180	1 0	782		874									
		OB.	5 120 10 130		0415 0403	35025 3502		81	0004	1157	7 0	824		874 886									
		0B			0403	35020		82	500.	. د د .		4		886									
			TO 140		0389	3500		82	000	4214	• 0	865		896									
		08			0389	35000		82						896									
		S	TD 150		0375	3500		83	000	+15	7 0	907		907									
		ОВ	S 150	00	0375	34995	27	83					1 4	907									

TERENCE 1 10.	SHIP CODE	LATITU	DE 1/10	LONGITUE	NE NE NE NE NE NE NE NE NE NE NE NE NE N	MARS SQU	ARE	STATION T (GMT)	1	YE AR	CRUISE NO.	STAT	ION		OEPTH TO BOTTOM	MAX DEPTH OF S*MPL*	1 0	BSER	A VE VA TIONS	60	ER L	CLOUD			NOOC TATION NUMBER
18017	Ev	4243		05014		150	1 1			1967	<del> </del>	003		-	1298	13	+ -		T PER S	1	_	TYPE AMI			
	. 1				**	1,0	WAT		VIND	BARO	1 410	TEMP.		_	NO.	_13	1 2:	5   4	2	X	ī	013			0021
							COLOR	TRANS DIR.	SPEED OR FORCE	METEL (mbs)	R ORY		ET C	VIS. ODE	200	SPE OBSER\	CIAL /ATION!	S							
							DT	SD 22	S24	200	0 230	) 2	20 .	7	22			1							
۸ ۱-	HESSENGE TIME HR 1/10	CAST NO.	CAR TYP		TH (m)	,	℃	s ·4.	SIGM	A-T	SPECIFIC VC	LUME -X107	≥ ∆ 0yn, x 1	0 M	SOU		O <sub>2</sub> ml	/1	PO4-P	101AL-		NO2-N ug - at/1	NO3-N 49 - al/l	SI O 4 Si µg = a1/	рН
																		$\top$			_				
		_	51		000		947	3434	244		00352	31	000	00	151	' 99		- 1		1		'			1
	20	3	089		000		947	34339	244						151										
			S1		010		125	3440	262		00175	06	002	26	149										
			0B3		010 020		125 985	34399 3434	262		00157				149										
	00.	2	089		020		985	34335	264 264		00156	19	004	+ 5	148										
	501	-	S1		030		874	3428	266		00143	73	005	5.8	148										
			085		030		874	34279	266		00112	, , ,	00.	0	148										
			S1	D 0	050	1	005	3490	268		00118	43	008	34	149										
			083		Ú50	1	005	34904	268	9					149										
			ST		075		095	3510	268		00119	72	011	14	149	52									
			085		075		095	35100	268						149	52									
			ST 089		100		085	3515	269		00115	27	014	+ 3	149										
			ST		100 125		085 016	35145 3510	269		00107		0.1 -		149										
			089		125		016	35099	270 270		00107	51	017	11	149										
			ST		150		958	3508	271		00099	0.4	019	7	149 149										
			OBS		150		958	35080	271		00099	74	019	, ,	149										
			ST	D 0	200	0.	815	3496	272		00087	73	024	4	148										
			085		200	0 (	815	34959	272	4					148	67									
			ST		250		526	3489	274		00067	57	048	3	148	01									
			085		250		526	34888	274						148										
			ST		300		540	3493	275		00054	33	031	. 3	147										
			085 ST		300 400		492	34930 3493	275				- 0 -	_	147										
			085		+00		192	34931	276 276		00049	12	036	5	147										
			ST		500		55	3493	276		00046	5.7	04.1	,	147										
			085		500		155	34930	276		00040	, ,	041	4	147										
			ST	0 0	500		440	3493	277		00045	95	046	0	147										
			085	0.0	00	04	440	34929	277					•	147										
			ST		700		431	3493	277		00045	70	050	6	147										
			OBS		700		31	34932	277						147	96									
			ST		300		+19	3494	277		00044	75	055	1	148										
			OBS		300		19	34939	277						148										
			ST 08S		900		+11 +11	3494 34944	277		00044	39	059	5	148										
			ST		000		+11 +06	3495	277 277		00064		06.	0	148										
			085		000		.06	34945	277		00044	00	064	U	148										
			ST		00		03	3495	277		00045	1.6	068	5	148										
			085		00		03	34946	277	-	V0043	10	008	9	148										
			ST		200		199	3495	277		00045	36	073	0	148										
			OBS	12	00	0.3	199	34949	277					,	148										
			085	1.2	98	03	97	34950	277						148										

ERENCE I ID.	SHIP	LATITU	DE t	ONGITUDE ED	MARSOEN SOUARE	STATION TI	YEAR	ORIGINATO	ION	DEPTH OEPTH TO DF S'MPL'	OBSE	WAVE RVATIONS	WEA- THER CODE	CLOUD CODES		\$	NOOC TATION	
18017	EV	4245		5014 W	150 20		213 1967	IIP 1003	8	0841 05	23	3 2	X1	0 3			0022	,
10011	_ •	1242	11		-		VINO BAR	A IR TEAAP	℃	NO.	·	- 1 - 1	1		ŧ			
					COLO		SPEED MET OR (mb	ER DRY V	VIS CODE	200	CIAL VATIONS							
					DT	SD 22	518 20	3 228 2	1	22								
	MESSENGI TIME HP 1/10	g NO.	CARO	DEPTH (m)	ī °c	5 %.	SIGMA-T	SPECIFIC VOLUME ANDMALY-¥10 <sup>7</sup>	₹ △ D OYN, M. x 10 <sup>3</sup>	SDUND	O 2 m1/I	PO4-P pg - 01/1	TOTA L-P ug = 01/1	NO2~N ug = at/1	NO <sub>3</sub> -N μg - αI/I	\$104-\$1 ug = a1/1	pH	
						-												
I		1	STE	0000	1918	3264	2320	0046648	0000	15171								
	21	3	OBS	0000	1918		2320			15171								
			OBS	0006	0919		2531			14845								
			ST		1246		2576	0022465	0035	14980								
	00	2	OBS	0010	1246		2651P			15011								
			085	0015	1307		2623			15011								
			ST	-	1205		2624	0017914	0055	14974								
			OBS	0020	1205		2624 2656	0014932	0071	14974								
			ST		1005			0014732	00 / 1	14904								
			OBS	0030	1005	34480 34530	2656			14869								
•			0BS	0040	0904 0986	3484	2676 2687	0012013	0098	14905								
			STÜ OBS	0050	0986	34839	2687	0012013	00 70	14905								
			0BS	0065	1099		2687			14951								
			STI		1085		2688	0011954	0128									
			OBS	0075	1085		2688	0011791	0.20	14948								
			OBS	0090	1150		2691			14976								
			STI		1125		2693	0011535	0158	14968								
			OBS	0100	1125	35239	2693			14968								
			ST	0125	1039	3507	2696	0011351	0186	14939								
			OBS	0125	1039	35070	2696			14939								
			ST	0150	0871	3497	2716	0009454	0212									
			OBS	0150	0871		2716			14880								
			ST		0763		2732	0007972	0256									
			OBS	0200	0763		2732			14847								
			OBS	0218	0596		2749			14783								
			085	0245	0634		2753	0005703	0.400	14805								
			ST		0612		2755	0005781	0290	14797 14792								
			085	0255 0270	0598		2757 2757			14792								
			OBS		0570		2759	0005446	0318									
			ST: OBS	0300	0570			3002440	0210	14788								
			ST		0498		2767	0004798	0369									
			085	0400	0498			000	0 /	14775								
			085	0485	0466					14775								

ID.	SHIP	LATITE		LOI		CRIFT	M ARS SQUA		1A12	ION GMT	TIME	YEAR	CRUIS	-	STATIO	-	DEPTH	DEPT	H OR	W A V		W.E.		OUD			NODC .
١0,			1/10		1/10	~	10"	i.	MO	YAC	HR,1/10		NO		NU M8E		BOTTO	M S'MPL		H GT P	ER SEA	COI	DE TYPE	IAM	7		UAABER
01	7 EV	4255	N c	05	014 W		150	20	07	27	228	1967	11	P 10	039		0256	0 0 2	2 23	3 6		X	1 6	6	1		0023
								WA	ER		WIND	BARC		AIR TE	MP °C	1	NO.	1		''	1	1	-, -		1		0023
							(	COLOR CODE	TRANS.	OIR.	SPEED OR FORCE	METE	R	DRY BULB	W E T	COD	0.00	0.05 6.0	ECIAL VATIONS								
		,	,							23	516	19	6	217	20	5 7	06										
	MESSENGE TIME HR 1/10	약 NO.	CAI		DEPTH I	m)	T	*c	\$	٠/	SIG	W.A.—T		MALY-X		≨ △ D DYN. ∧ x 10 <sup>3</sup>	4 20	OCITY	0 2 ml/	PO.		TOTA L =			NO3=N µg = at/1	St 04-51 49 - of 1	рН
																					T						
			_	TD	0000			355	324		24		0.0	3730	12 (	0000	) 14	993									
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				TD	001			056	32	-		0.8	00	2888	3	0033	3 14	+896									
	2.2		_	TD	0020			772	330		25		00	2240	4 (	0059	9 14	+796									
	228	9	ОВ		0029			536	33								14	744									
				TD	0030			437	33:			29		1744		0079	9 14	+664									
	221			TD	0050			116	332		26		00	1558	7 (	110	) 14	4484									
	228	3	0B		0050			016	332									+484									
	228	,		TD	0079			331	337		26		00	1150	3 (	0141		635									
	220	,	0 B		0079			331	337		26							635									
	228	0	0 B	TO	0100			+55	339		26		00.	1125	1 (	169		694									
	220	,		5 TD	0100			+55	339		26							694									
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	228	>	0В:	5	T0155	>	05	89	343	93	27	11					14	764									

REFERENCE CIRY ID. CODE NO. 31801	SHIP CODE	4305	1/10	LONGITUDE 17/10		10		0   0		IR,1/10	YEAR 1967	+	JISE O.	STATIO NUMB	2	DEPTH TO 80110A	3 MYL	S OIR	WAVE SERVATIONS HGT PER SE		CLOUD CODES			NODC STATION NUMBER
,		,,,,,,		05014 #	1		WATES	_	V	SPEED	8AR MET	O- ER		MP. *C	VIS		SPE	CIAL /ATIONS	[3 [3]	[ X1	6 7	1	1	0024
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	MESSENGR TIME HR 1/10	LCAST NO.	C AR TYP		im)	r °c		S	٠/٠٠	SIGA	√ A ~ T		DMALY-1		X 103	4 30	TIDC	O 2 ml/l	PO4~P vg • 01/1	TOTA L = P ug - at/l	NO2-N	NO3~N pg - at, 1		n H
	009	,	S1 0B3 S1 0B3 S1 0B3	000 001 001 002 002	0 0 0 0 5	181 181 092 092 031 010	8 5 5 6 9	3 2 4 3 2 4 3 2 8	241 +3 +31 34 981	23 23 25 25 26 26	14 09 09 17	00	04739 02881 01853	. 3	0000 0038 0062	15 14 14 14 14	137 137 845 845 607 519							
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